

County Borough



of Halifax.

HEALTH DEPARTMENT.

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# REPORT

OF THE

Medical Officer of Health,

Together with the Report of the

SANITARY INSPECTOR,

FOR THE

Year ended December 31st, 1906.

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*Printed by order of the Health Committee.*

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HALIFAX :

MESSRS. EDWARD MORTIMER, PRINTERS, REGENT STREET.

1907.

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# Staff of the Health Department.

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Medical Officer of Health and Superintendent of the  
Borough Fever Hospital.

JAS. T. NEECH, M.D., D.P.H., &c.

Assistant Medical Officer of Health.

J. F. HODGSON, M.D., D.P.H., &c.

Public Analyst.

J. A. DEWHIRST, F.I.C., F.C.S.

Chief Sanitary Inspector & Scavenging Superintendent.

DAVID TRAVIS.

Meat Inspector.

J. T. MILLINGTON.

District Sanitary Inspectors.

JAMES ARCHBELL.  
J. WOOD.

J. E. FIRTH.  
R. PICKARD.

Assistant Scavenging Superintendent.

R. TRAVIS.

Chief Clerk.

J. W. JACKSON.

Assistant Clerks.

CHARLES CARLTON.

ERNEST JUBB.

Matron of the Borough Hospital.

MISS ROBISON.

Disinfector.

T. W. BOOTH.

Laundry Engineer.

W. GUEST.

Porter.

H. VICKERMAN.

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## Goux Department.

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Goux Inspectors.

J. HEATH.

S. MAUDSLEY.

Clerk.

HARRY ASKE.

County Borough of Halifax.

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REPORT  
OF THE  
MEDICAL OFFICER OF HEALTH  
JAS. T. NEECH, M.D., D.P.H.,  
*For the Year 1906.*

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INTRODUCTION.

*To the Chairman and Members of the Health  
Committee.*

GENTLEMEN,

In accordance with the requirements of the Local Government Board, I have the pleasure of placing before you the Thirty-fourth Report on the Health of the Borough, being the Annual Report of the Medical Officer of Health for the year ended December 31st, 1906.

I regret that I have again to state that the birth-rate for the above year is the lowest on record. Year by year this important rate continues to fall, although the fall for the year under notice is only very small, even compared with that of the previous year. I fear however that this is not an indication that we have got to about the limit in the constant and gradual diminution that has been annually going on in the number that are born. I wish there were definite signs of such a result, for I fear that the birthrate will fall still further before that limit is reached.



The general deathrate of the Borough, though slightly above that of the previous year, is I think fairly satisfactory.

One pleasant feature recorded in the following Report, is the great fall that has taken place in the deathrate of infants under one year of age. The infant mortality for the year 1906 is considerably the lowest on record. This is highly satisfactory. It is hoped that this improvement will be maintained, and that this deathrate will be even further reduced. The spread of information among mothers on the rearing of children would greatly help, and with this view I gave a course of lectures during the winter months, which were well attended, and also appeared to be considerably appreciated.

We need a Lady Health Visitor to assist in this kind of work, and also to supervise the work of the Midwives, which devolves upon your Committee.

In conclusion I have to acknowledge the assistance rendered me by Mr. Travis, the District Sanitary Inspectors, and Messrs. Jackson & Carlton, and also to thank your Committee for its generous support.

I am,

Gentlemen,

Your obedient Servant,

*Jas. J. Keech M.D. D.P.H.*

MEDICAL OFFICER OF HEALTH.

TOWN HALL,

HALIFAX,

May 8th, 1907.

## STATISTICAL SUMMARY.

	1906.	1905.
	ACRES.	
Area of County Borough ...	13,650	
Rateable Value ...	£495,000	£493,839
Population, estimated to middle of 1906 ...	108,000	107,500
Population, 1901 Census ...	104,936	
Persons per Acre ...	7·9	7·8
Average number of Persons per Inhabited House, 1901 Census ...	4·2	
Average number of Persons per House, 1901 Census ...	4·0	
Birth Rate, 1906 ...	19·1	19·2
„ Average for previous 10 years ...	21·8	22·3
Death Rate, 1906 ...	16·1	15·3
„ Average for previous 10 years ...	16·4	16·8
„ Corrected ...	15·5	15·05
Death Rate for seven principal Zymotic Diseases ...	1·3	0·88
Death Rate, the mean for previous 10 years of Zymotic Diseases ...	1·2	1·2
Death Rate of Infants under 1 year per 1000 Births ...	116·9	130
Illegitimate Births ...	99	97
Average Age at Death, 1906—Males ...	39·0 years	38·6 years
Average Age at Death, 1906—Females ...	44·9 years	44·1 years
Latitude—North ...	53° 43'	
Longitude—West ...	1° 52'	
Height above Sea Level, feet	625	
Total Rainfall, inches ...	33·84	25·94

## Area and Population of the Borough.

The area of the Borough is 13,650 acres. It is divided into fifteen wards, as the following table will show.

WARDS.	Population Estimated to Middle of 1906.	Acreage.	Persons per Acre.	No. of Houses Built during 1906.
Ovenden ...	7310	531	13·7	10
Akroydon ...	6700	582	11·5	24
North ...	8375	168	49·8	12
Central ...	7835	82	95·5	0
West ...	9285	86	107·9	0
South ...	7690	296	25·9	0
East ...	7010	191	36·7	0
Southowram ...	7535	777	9·6	1
Skircoat ...	9855	513	19·2	60
Copley ...	2990	532	5·6	9
Pellon ...	9520	241	39·5	23
Kingston ...	10505	238	44·1	15
Illingworth ...	7230	4504	1·6	9
Northowram ...	3295	1555	2·1	4
Warley ...	2865	3354	0·8	3
Totals ..	108000	13650	...	170
Average ...	...	...	7·9	...

## Marriages.

During the year 1906, there were 1028 marriages solemnised within the Borough, which gives a marriage rate of 9·5 per 1000, against 9·7 during the previous year.



The following table shows where the marriages took place.

In Churches of the Church of England	...	615
In Nonconformist places of worship, and at the Register Office	... ..	413
Total	... ..	1028

There has been a considerable fall in the marriage rate of the Borough during the past seven years. There has also been a fall in the marriage rate of England and Wales, but the fall in the latter rate has been much less than that of the Borough.

The following table compares the marriage rate of Halifax with that of England and Wales, during the past seven years.

YEAR.	MARRIAGE RATE.	
	Halifax.	England & Wales.
1900	11·2	16·0
1901	10·5	15·9
1902	9·8	15·9
1903	9·5	15·8
1904	9·7	15·2
1905	9·7	15·2
1906	9·5	15·6

### **Births.**

There were 2070 Births registered during the year under review, or two less than the number registered during the previous year. This gives a birthrate of



19·1 per 1000, against 19·2 during the previous year, and is the lowest birthrate yet recorded in the Borough.

Of the above, 1,042 were males, and 1028 were females.

The excess of Births over Deaths was 396, and this number represents the natural increase in the population of the Borough during the year.

The birthrate in the Country has been gradually falling during the past 30 years, and still appears to be on the down grade. Between 1875-9 the birthrate of Halifax was actually higher than the average for England and Wales, but at present it is 8 per 1,000 below the same, consequently there has been a much more rapid fall in the birthrate of Halifax than in the average rate for England and Wales, as the following table will show.

Period.	England and Wales.	Halifax.	Difference.	
1875-9	35·3	35·7	+	0·4
1880-4	33·8	30·7	—	3·1
1885-9	31·4	28·0	—	3·4
1890-4	30·7	25·4	—	5·3
1895-9	29·7	23·1	—	6·6
1900-4	28·4	21·5	—	6·9
1905-6	27·1	19·1	—	8·0

It would appear that this great fall in the Halifax birthrate is at any rate partly due to the fall in the marriage rate. People appear now to wait until they are of mature age before they enter into matrimony. The average marriage rate for England and Wales at present is over 15 per 1,000, whereas the average rate

for the Borough is under 10, consequently it would appear that in comparison with the marriage rate, the birthrate of Halifax is quite equal to, or even above that of the Country generally.

It appears that the number of illegitimate births is on the increase, as the following table will show.

Year.	Number of Illegitimate Births.	Rate per cent, to whole number of Births.
		Average.
1891	51	2·3
1892	78	3·5
1893	73	3·2
1894	73	3·4
1895	51	2·3
1896	65	2·7
1897	44	2·0
1898	58	2·6
		2·7
1899	58	2·5
1900	75	3·2
1901	101	4·2
1902	89	4·0
1903	102	4·5
1904	113	5·2
1905	97	4·6
1906	99	4·7
		4·1

The above table gives the number of illegitimate births registered in the Borough during the past 16 years, together with the rate per cent. which these births bear to the total number of births, and as the table shows, the average percentage born during the past 8 years is considerably above the average born during a similar previous period.

The mean birthrate of the 33 large towns for 1906 was 27·4 per 1,000, as compared with 27·6 for the previous year.

The birthrate of Halifax was again the lowest of those towns, Bradford coming next with a rate of 20·6 per 1,000.

The birthrate of England and Wales for 1906, was 27·0 per 1000.

The number of births, and the birthrates, during each quarter of the year, are shown in the following table.

TABLE SHOWING BIRTHS AND BIRTHRATES  
IN EACH QUARTER OF 1906.

Period.	Males.		Females.		Totals.		Birthrate per 1000 living.	
	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.
1st Quarter ...	257	256	268	270	525	526	19·4	19·5
2nd „ ...	248	266	261	281	509	547	18·8	20·3
3rd „ ...	283	288	255	258	538	546	19·9	20·3
4th „ ...	254	220	244	233	498	453	18·4	16·8
Whole Years ...	1042	1030	1028	1042	2070	2072	19·1	19·2

The following table gives the birthrates of the different wards during the past five years.

WARDS.	BIRTHRATES.					
	1902	1903	1904	1905	1906	Average.
Ovenden ...	20·7	21·9	21·4	17·5	19·9	20·2
Akroydon ...	28·2	26·0	25·3	27·0	23·2	25·9
North ...	25·2	27·6	22·9	21·2	25·1	24·4
Central ...	20·9	23·8	21·0	20·2	18·1	20·8
West ...	21·0	16·6	17·7	14·6	17·9	17·5
South ...	15·3	17·2	15·4	13·5	14·3	15·1
East ...	15·5	15·9	14·9	14·6	17·5	15·7
Southowram ...	28·9	23·4	25·1	23·2	22·4	24·6
Skircoat ...	17·9	22·3	22·3	21·2	17·5	20·2
Copley ...	14·0	13·2	14·6	21·5	17·7	16·2
Pellon ...	20·0	20·6	18·6	18·7	17·3	19·0
Kingston ...	17·5	18·9	16·9	17·3	18·3	17·8
Illingworth ...	20·2	21·9	19·3	17·8	18·1	19·4
Northowram ...	29·0	21·4	29·0	27·3	21·5	25·6
Warley ...	18·2	21·0	20·3	22·3	20·2	20·4



According to information kindly furnished by the caretakers of the cemeteries and burial grounds in the Borough, there were 112 still-born children buried during the year.

The following table shows the number buried in each of the burial grounds during the past two years.

Name of Burial Ground.	Number of Still-born Children Buried therein.	
	1906.	1905.
Moor End Chapel...	1	0
Nursery Lane Wesleyan ...	0	1
St. George's, Ovenden ...	1	3
Providence Chapel, Ovenden ...	1	0
Illingworth Church ...	3	4
Christ Church, Mount Pellon ...	7	11
Illingworth Wesleyan Chapel ...	2	2
Mount Zion, Ovenden ...	0	1
Borough Cemetery ...	34	26
Wesleyan Chapel, Northowram ...	0	0
All Saints' Church ...	6	8
Heywood Cemetery ...	1	2
Bradshaw Church ...	0	0
Mount Tabor Burial Ground...	0	0
King Cross Wesleyan ...	8	11
St. Paul's Church, King Cross ...	15	8
All Souls' Cemetery ...	12	16
Warley Church ...	1	1
Wesleyan Chapel, Luddenden ...	0	0
Lister Lane Cemetery ...	10	7
St. Thomas' Church ...	10	12
Totals ...	112	113

The number buried during 1901 was 108; 1902, 86; 1903, 118; and 1904, 121 respectively.



## Deaths.

The number of deaths registered within the Borough during the year 1906 were 1,741. Of these, 107 did not belong to the district, but there also occurred 40 outside the Borough, among persons belonging thereto, so that excluding the former, and including the latter, the corrected number of deaths for the year was 1,674.

Of the latter number 844 were males, and 830 were females. This gives a deathrate for the year of 15·5 per 1,000, which is ·5 above that of the previous year.

The deathrate for England and Wales for 1906 was 15·4 per 1,000, and the average for the 76 great towns was 15·9 per 1,000.

The deathrate of the other Yorkshire great towns was as follows:—Leeds, 15·8; Sheffield, 16·7; Bradford, 16·1; Hull, 17·0; Huddersfield, 17·3; Rotherham, 16·3; and York, 13·7 respectively.

Although there was a slight increase in the deathrate of the Borough during last year, there was a greater increase in the above towns, so that Halifax has the lowest deathrate of the Yorkshire great towns, except the City of York, and the latter occupies a unique position in being the only Yorkshire great town which can show a lower deathrate than that of the previous year.

Deathrates naturally fluctuate from year to year, and after falling to a point below any previous record during any year, the following year or two is almost certain to witness a rise in the rate. But while this is the case, steady progress is gradually being made, in securing a lowering of the average general deathrate of the Borough, as the following table will show.

Period.	Deathrate.
1876-80	23·5
1881-5	21·1
1886-90	21·2
1891-5	17·9
1896-00	17·5
1901-5	15·3
1906	15·5

The deathrates of the various wards into which the Borough is divided, also vary considerably, and in the following table particulars are set out which serve to compare the various deathrates of the wards.

WARDS.	Population.	Acreage.	Persons per Acre.	Total Deaths.	Death- rate per 1000.	Mortality per 1000 living.		
						Zy- motics.	Phthisis.	Other Respi- ratory Diseases.
Ovenden ...	7310	531	13·7	109	14·9	1·9	1·3	1·6
Akroydon ...	6700	582	11·5	99	14·7	1·6	0·2	2·2
North ...	8375	168	49·8	144	17·1	1·3	0·8	2·9
Central ...	7835	82	95·5	138	17·6	1·1	2·0	3·1
West ...	9285	86	107·9	135	14·5	0·4	0·7	3·2
South ...	7690	296	25·9	108	14·0	1·0	0·6	1·8
East ...	7010	191	36·7	159	22·6	1·5	2·4	3·1
Southowram	7535	777	9·6	128	16·9	3·0	1·3	3·0
Skircoat	9855	513	19·2	152	15·4	0·9	0·9	3·2
Copley ...	2990	532	5·6	42	14·0	1·6	0·6	1·6
Pellon ...	9520	241	39·5	115	12·0	0·9	1·0	1·8
Kingston ..	10505	238	44·1	131	12·4	1·1	1·0	2·4
Illingworth	7230	4504	1·6	113	15·6	0·8	0·4	3·0
Northowram	3295	1555	2·1	45	13·6	1·5	1·5	3·3
Warley ...	2865	3354	0·8	56	19·5	1·7	2·7	3·1
Totals ...	108000	13650	7·9	1674	15·5	1·3	1·1	2·6

The following table shows the total numbers of deaths of each sex, which have occurred within the Borough, the total ages lived, and the average age at death, during the past eleven years.

MALES.				FEMALES.			
	Deaths.	Total Years.	Average Ages.		Deaths.	Total Years.	Average Ages.
0-1	150	150	...	0-1	92	92	...
1-5	84	205	2·4	1-5	77	177	2·3
5-15	39	317	8·1	5-15	37	273	7·3
15-25	38	778	20·4	15-25	40	800	20·0
25-65	322	16096	49·9	25-65	293	14264	48·6
65 and upwards	211	15436	73·1	65 and upwards	291	21710	74·6
Total... 1906.	844	32982	39·0	Total... 1906.	830	37316	44·9
1906	Average		39·0	1906	Average		44·9
1905	„		38·6	1905	„		44·1
1904	„		37·5	1904	„		41·2
1903	„		40·0	1903	„		43·3
1902	„		36·6	1902	„		40·2
1901	„		36·2	1901	„		40·1
1900	„		38·3	1900	„		41·2
1899	„		35·1	1899	„		38·4
1898	„		34·4	1898	„		38·2
1897	„		35·3	1897	„		37·9
1896	„		35·5	1896	„		38·4



From the foregoing table it will be observed that the average age at death has again risen for the year under notice. During 1904, there was a remarkable lowering of the average age at death, but during the past two years it has again risen, and for females the average age at death during 1906 is the highest yet recorded. As will be seen, however, this is not quite the case with regard to the male portion of the population, for the highest average age at death reached by males was during the year 1905, when the average age at death was 40 years.

The table also shows that females invariably have a longer average life than males.

### **Zymotic Deathrate.**

The deathrate from the seven principal zymotic diseases, for the year 1906; like that of the general deathrate, is slightly higher than for the previous year, and it is worthy of note that the slight increase in the general deathrate is almost wholly accounted for by the rise in the zymotic deathrate. The general deathrate of the Borough for the year under notice is  $\cdot 45$  higher than that of the previous year, and the zymotic deathrate has increased by  $\cdot 43$  per 1000, so that the general deathrate apart from the principal zymotic diseases, for the year 1906, is only  $\cdot 02$  higher than that of the previous year.

Of the 33 great towns of England and Wales, Halifax usually has had the lowest zymotic deathrate, but during the past two years Brighton has had a lower deathrate from these causes.

During the year under review, 142 deaths resulted from the principal zymotic diseases, which gives a deathrate of 1·31, against ·88 during the previous year.

The zymotic deathrate for Brighton during 1906, was 1·08 per 1000, and for the other Yorkshire great towns as follows:—Leeds, 2·22; Sheffield, 2·91; Bradford, 2·03; Hull, 2·91; Huddersfield, 2·21; York 1·74; and Rotherham 3·46.

The following table gives the average zymotic deathrate of England and Wales, and of the great towns, with which that of Halifax favourably compares.

	DEATHRATE FROM							
	Small-pox.	Measles	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Zymotic Death-rate.
England and Wales...	0·00	0·27	0·10	0·17	0·23	0·09	0·87	1·73
76 Great Towns ...	0·00	0·40	0·12	0·19	0·28	0·09	1·16	2·21
141 Smaller Towns ...	0·00	0·22	0·09	0·17	0·20	0·09	0·94	1·71
England and Wales, less the 217 towns ...	0·00	0·14	0·08	0·16	0·19	0·09	0·52	1·18
HALIFAX ...	0·00	0·49	0·05	0·38	0·05	0·03	0·28	1·31

The following table shows the distribution of deaths from the chief zymotic diseases, among the wards of the Borough.

WARDS.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.	Zymotic Death-rate per 1000.
Ovenden ...	...	8	1	1	...	1	3	1·9
Akroydon ...	...	4	...	5	...	...	2	1·6
North ...	...	4	...	1	1	...	5	1·3
Central ...	...	5	...	1	1	...	2	1·1
West ...	...	2	...	1	...	...	1	0·4
South ...	...	1	...	5	...	...	2	1·0
East ...	...	3	1	1	...	1	5	1·5
Southowram ...	...	12	1	4	1	1	4	3·0
Skircoat ...	...	1	...	3	...	1	4	0·9
Copley ...	...	...	1	3	1	...	...	1·6
Pellon ...	...	4	1	4	...	...	...	0·9
Kingston ...	...	3	...	6	2	...	1	1·1
Illingworth ...	...	4	1	1	...	...	...	0·8
Northowram ...	...	...	...	4	...	...	1	1·5
Warley ...	...	2	...	2	...	...	1	1·7
Totals ...	...	53	6	42	6	4	31	Av'ge 1·3

While the zymotic deathrate of the Borough varies slightly from year to year, there has been a constant and gradual fall in that deathrate during the past thirty years, as the following table will show.

Period.	Deathrate.
1877-81	2·50
1882-6	1·55
1887-91	1·43
1892-6	1·33
1897-01	1·40
1902-6	1·02

### **Infantile Mortality.**

During the year under notice there died 242 infants under one year of age, 29 less than occurred during the previous year. This gives a mortality of 116·9 deaths, to 1,000 births registered, compared with 130 deaths to 1,000 births registered during the previous year, and is the lowest rate of mortality that has ever been recorded in the Borough.

So far, this is satisfactory, but there is yet great room for improvement, and we should not rest satisfied until this mortality is brought down to considerably below 100 deaths per 1,000 births per annum.



The following table gives the number of births, the birthrates, the number of deaths of infants under one year of age in each ward, and the mortality per 1,000 births.

WARDS.	Number of Births.	Birthrates.	Number of Deaths under 1 year.	Mortality per 1000 Births.
Ovenden ...	146	19·9	17	116
Akroydon ...	156	23·2	15	96
North ...	211	25·1	29	137
Central ...	142	18·1	34	239
West ...	167	17·9	15	89
South ...	110	14·3	7	63
East ...	123	17·5	32	260
Southowram ...	169	22·4	22	130
Skircoat ...	173	17·5	14	80
Copley ...	53	17·7	3	56
Pellon ...	165	17·3	14	84
Kingston ...	193	18·3	12	62
Illingworth ...	131	18·1	13	99
Northowram ...	71	21·5	6	84
Warley ...	60	20·2	9	150
Totals ...	2070	19·1	242	116

The following table shows the causes of death of infants under one year of age, during the year under notice.

CAUSE OF DEATH.						Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks
All Causes.	{	Certified	...	...	...	55	14	17	9
		Uncertified	...	...	...	1	...	...	...
Common Infectious Diseases.	{	Measles...	...	...	...	...	...	...	...
		Scarlet Fever...	...	...	...	...	...	...	...
		Diphtheria, Croup	...	...	...	...	...	...	...
		Whooping Cough	...	...	...	...	...	...	...
Diarrhœal Diseases.	{	Diarrhœa, all forms...	...	...	...	...	...	2	...
		Enteritis <small>Muco-enteritis, Gastro-enteritis</small>	...	...	...	...	...	...	...
		Gastritis, Gastro-intestinal Catarrh	...	...	...	...	...	...	2
Wasting Diseases.	{	Premature Birth	...	...	...	28	3	6	1
		Congenital Defects	...	...	...	8	1	...	1
		Injury at Birth	...	...	...	2	2	...	...
		Want of Breast-milk, Starvation	...	...	...	...	...	...	...
		Atrophy, Debility, Marasmus	...	...	...	6	1	3	...
Tuberculous Diseases.	{	Tuberculous Meningitis	...	...	...	...	...	...	...
		Tuberculous Peritonitis: <small>Tabes Mesenterica</small>	...	...	...	...	...	...	...
		Other Tuberculous Diseases	...	...	...	...	...	...	...
		Erysipelas	...	...	...	...	...	...	...
Other Causes	{	Syphilis	...	...	...	...	...	1	...
		Rickets	...	...	...	...	...	...	...
		Meningitis ( <i>not Tuberculous</i> )	...	...	...	...	1	...	...
		Convulsions	...	...	...	4	2	2	4
		Bronchitis	...	...	...	...	...	...	...
		Laryngitis	...	...	...	...	...	...	...
		Pneumonia	...	...	...	...	1	1	1
		Suffocation, overlying	...	...	...	3	...	...	...
		Other Causes	...	...	...	5	3	2	...
								56	14

Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under One Year
95	26	16	12	16	10	9	13	14	10	10	9	240
1	...	...	...	...	...	...	...	1	...	...	...	2
...	...	1	...	...	...	1	2	1	2	5	2	14
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	1	...	...	...	...	1
2	1	2	2	1	...	...	1	2	2	...	...	13
...	4	...	1	1	3	...	...	...	1	1	...	11
2	...	1	...	...	...	...	...	...	...	...	...	3
38	1	...	...	...	...	...	...	...	...	...	...	39
10	...	...	1	...	...	...	1	2	...	...	...	14
4	...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	1	...	...	1
10	11	4	4	4	...	1	...	1	...	...	1	36
...	...	...	...	...	1	...	...	1	...	...	...	2
...	1	1	...	...	...	1	...	1	...	...	1	5
...	...	...	...	...	...	...	...	1	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...
1	1	1	...	1	...	...	1	...	...	...	...	5
...	1	...	...	...	...	...	...	...	...	1	...	2
1	...	...	...	1	...	...	1	...	...	...	...	3
12	3	2	...	1	1	...	1	...	...	...	...	20
...	1	1	2	1	...	1	1	...	1	2	2	12
...	...	...	...	...	...	1	...	...	...	...	...	1
3	2	3	1	2	1	2	2	4	3	1	3	27
3	...	...	...	...	...	...	...	...	...	...	...	3
10	...	...	1	4	4	2	2	2	...	...	...	25
96	26	16	12	16	10	9	13	15	10	10	9	242

The infant mortality in the different wards of the Borough varies from time to time, and the following table is given to show the average infant mortality, and the birthrates of each ward, during the past five years.

WARDS.	Deaths under 1 Year to 1000 Births Registered.						Average Birthrate during the past five years.
	1902.	1903.	1904.	1905.	1906.	Average.	
Ovenden ...	154	132	90	132	116	124	20·2
Akroydon ...	140	122	162	167	96	137	25·9
North ...	216	126	162	197	137	167	24·4
Central ...	207	123	145	176	239	178	20·8
West ...	117	135	127	139	89	121	17·5
South ...	138	136	117	115	63	133	15·1
East ...	220	214	228	145	260	213	15·7
Southowram	179	193	127	148	130	155	24·6
Skircoat ...	110	90	61	82	80	84	20·2
Copley ...	97	50	46	93	56	68	16·2
Pellon ...	113	72	126	129	84	104	19·0
Kingston ...	138	126	152	71	62	109	17·8
Illingworth	97	101	158	85	99	108	19·4
Northowram	84	71	136	155	84	106	25·6
Warley ...	76	116	69	78	150	97	20·4

From the above table it will be seen that the average infant mortality for East Ward is still the highest, and that although it has a very low birthrate, 15·7, its aver-



age infant mortality rate has again risen from 201 to 213 per 1000, and for the year 1906 this mortality reached the immensely high figure of 260 for every 1000 births.

The infantile deathrate in Central Ward was also very excessive.

Copley Ward has the lowest infantile deathrate, and while these deathrates of the various wards must necessarily vary considerably, yet when we see average rates like 68 in Copley, 84 in Skircoat, and 97 in Warley, we cannot but come to the conclusion that a large number of deaths occur among infants under one year of age which could be prevented.

The question then arises as to what steps can be taken to prevent this great slaughter of the infants.

In the first place, an alteration in the Registration law is needed, and parents should be compelled to register their children, or report the birth of the same to the Health Authorities, within 48 hours. At present, six weeks is allowed for the purpose of registration, and nearly 40% of the deaths among infants occur under the age of one month.

A great many infantile deaths are the result of ignorance and carelessness on the part of the mother, but under present conditions it is absolutely impossible to give early instruction to mothers, in the up-bringing of children, because of the late registration of the birth, and the consequent impossibility of the Health Authority obtaining early information thereof.

What is needed then, is early information of the birth, and the appointment of a properly qualified Health Visitor, to visit the homes of the poorer people, where births have occurred, and give instructions and advice to the mother, as to how to feed and treat the infant. I have no doubt whatever but that this would lead to the saving of infant life.

It is quite possible also, I think, that infant lives could be saved in other directions. For instance, one of the great causes of infant mortality is premature birth, and I notice that no less than 101 infants died from this cause during the past two years. Of that number, 60 died under a week old, but 41 of these lived to the age of from one week to three months. I don't suppose that much could be done to save the lives of those who died before they reached a week old, although possibly something might be done for some of them, but I certainly think that the life of a number of those who lived beyond that age might have been preserved, had they had the advantage of an Incubator. I see no reason why Incubators should not be provided by the municipality for that purpose, because with a gradually falling birthrate it is absolutely essential that as many of those who are born as possible, should be kept alive.

The next table shows the number of deaths which have taken place in the Borough, from some of the chief infantile diseases, and gives the deathrate therefrom of each disease, per 1000 of the population.

DISEASES.	Number of Deaths under 1 year.					Rate per 1000 of Population.				
	1902	1903	1904	1905	1906	1902.	1903.	1904	1905	1906
From all causes ...	324	279	282	271	242	3·05	2·61	2·63	2·52	2·24
Respiratory Diseases	64	59	61	52	39	·60	·55	·57	·48	·36
Premature Birth ...	79	50	59	62	39	·74	·46	·55	·57	·36
Diarrhoea ...	2	8	22	10	12	·01	·07	·20	·09	·11
Whooping Cough	8	13	4	15	1	·07	·12	·03	·14	·009
Convulsions ...	50	33	22	22	20	·47	·30	20	·20	·18
Scrofula, Tuberculosis ...	16	20	10	15	8	·15	·18	·09	·14	·07
Measles ...	10	3	16	1	15	·09	·02	·14	·009	·13

The following table gives the infant mortality of England and Wales, the great towns, &c., with which that of Halifax very favourably compares.

	Deaths under 1 year per 1000 Births.
England and Wales ...	133
76 Great Towns ...	145
141 Smaller Towns ...	138
England and Wales less the 217 Towns ...	116
HALIFAX ...	116

Each of the above rates, except that of Halifax, are higher than that of the previous year. The latter is considerably lower, hence our infantile mortality for the past year was no greater than the average of Rural England.



The infant mortality of the other Yorkshire great towns were as follows: Leeds 152; Sheffield 158; Bradford 152; Hull 161; Huddersfield 135; York 124; and Rotherham 158 respectively.

In the following table the average infant mortality of the Borough, and of England and Wales, is shown in quinquennial periods, from 1875 to the present time.

Period.	Halifax.	England and Wales,
1875-9	173	145
1880-4	161	141
1885-9	158	142
1890-4	163	148
1895-9	154	157
1900-4	132	143
1905-6	123	130

The above figures show that the infant mortality of England and Wales has remained practically the same throughout that period, until the past two years.

That for Halifax, which was considerably above the country generally, at the beginning of the above period, has gradually fallen, so that it is now considerably below that of England and Wales.

In judging of a deathrate, or statistics generally, it is never safe to take one year only. An average of five years always gives a better and safer indication,



consequently in the following table, the average infant mortality of the 27 largest towns of the country is shown during the past five years, and as will be seen from the averages of these, two have a slightly lower infant mortality than Halifax.

27 LARGE TOWNS.	Deaths under 1 year to 1,000 Births Registered.					
	1902.	1903.	1904.	1905.	1906.	Average.
Preston ... ..	188	161	183	153	202	177
Liverpool... ..	162	159	196	154	172	168
Manchester ... ..	152	168	187	157	167	166
Birmingham ... ..	156	158	195	155	167	166
Norwich ... ..	156	149	179	173	172	166
Salford ... ..	155	166	193	150	160	165
Nottingham ... ..	158	164	175	155	171	164
Sheffield ... ..	149	182	158	167	158	163
Blackburn ... ..	157	159	191	146	155	161
Leeds ... ..	159	153	176	152	150	158
Hull ... ..	137	162	181	153	158	158
Leicester ... ..	152	161	163	148	168	158
Birkenhead ... ..	148	155	180	127	151	152
Bolton ... ..	134	152	167	166	140	152
Plymouth... ..	154	144	173	136	152	152
Sunderland ... ..	152	156	165	143	139	151
Oldham ... ..	148	160	155	150	145	151
Newcastle-on-Ty'e	139	165	156	137	151	149
Bradford ... ..	138	147	166	144	151	149
Wolverhampton...	133	141	152	136	139	140
Portsmouth ... ..	151	113	141	133	129	133
Cardiff ... ..	146	122	144	118	138	133
Derby ... ..	124	128	143	151	115	132
Huddersfield ... ..	137	120	136	119	135	129
<b>Halifax</b> ... ..	<b>143</b>	<b>122</b>	<b>130</b>	<b>130</b>	<b>116</b>	<b>128</b>
Bristol ... ..	130	116	133	122	126	125
Brighton ... ..	125	110	134	101	110	116

### Comparison of Ward Deathrates.

The following table is given in order that the undermentioned deathrates of the different Wards of the Borough for the year 1906 may be compared.

WARDS.	General Deathrates	Zymotic Deathrates	Respiratory Deathrates	Phthisis Deathrates	Infantile Mortality
Ovenden ...	14·9	1·9	1·6	1·3	116
Akroydon ...	14·7	1·6	2·2	0·2	96
North ...	17·1	1·3	2·9	0·8	137
Central ...	17·6	1·1	3·1	2·0	239
West ...	14·5	0·4	3·2	0·7	89
South ...	14·0	1·0	1·8	0·6	63
East ...	22·6	1·5	3·1	2·4	260
Southowram ...	16·9	3·0	3·0	1·3	130
Skircoat ...	15·4	0·9	3·2	0·9	80
Copley ...	14·0	1·6	1·6	0·6	56
Pellon ...	12·0	0·9	1·8	1·0	84
Kingston ...	12·4	1·1	2·4	1·0	62
Illingworth ..	15·6	0·8	3·0	0·4	99
Northowram ...	13·6	1·5	3·3	1·5	84
Warley ...	19·5	1·7	3·1	2·7	150
Average ...	15·5	1·3	2·6	1·1	116

### Notification of Infectious Disease.

The notification of certain infectious diseases has been compulsory in the Borough since the year 1882. During the year under notice a total of 473 cases were reported, against a total of 584 during the previous year.

The following table shows the total number of cases of each disease notified, and also gives the distribution of the reported cases among the various wards of the Borough, as well as Institutions.

WARDS.	Small-pox.	Typhoid Fever.	Scarlet Fever.	Puerperal Fever.	Diphtheria.	Erysipelas.	Total.	Rate percentage of Population.
Ovenden...	...	2	23	1	9	5	40	·54
Akroydon	...	1	21	1	10	7	40	·59
North	...	2	6	2	4	2	16	·19
Central	...	3	7	...	7	2	19	·24
West	...	...	21	1	19	4	45	·48
South	...	3	7	...	9	1	20	·26
East	...	2	3	1	8	1	15	·21
Southowram	...	8	14	...	8	3	33	·43
Skircoat	...	6	8	...	22	10	46	·46
Pellon	...	2	16	...	18	5	41	·43
Kingston	...	6	21	1	24	3	55	·52
Illingworth	...	2	32	...	7	9	50	·69
Copley	...	1	8	...	5	4	18	·60
Northowram	...	...	20	...	5	...	25	·75
Warley	...	...	7	...	3	...	10	·34
Total, 1906	...	38	214	7	158	56	473	·43

PUBLIC INSTITUTIONS (which are included in the above).

Royal Infirmary	...	3	1	1	4	...	9	...
Poor Law Hospital	...	1	...	...	1	7	9	..
Workhouse	...	...	11	...	...	...	11	..

Lists have been sent each week throughout the year to the Public Libraries, containing the names and addresses of those notified.



As many of the infectious diseases tend to become more prevalent during certain periods of the year, the following table is given in order to show the number of cases notified during each month of 1906.

MONTH.	Smallpox.	Typhoid Fever.	Scarlet Fever.	Puerperal Fever.	Diphtheria.	Erysipelas.	Total.
January ...	...	5	27	2	16	8	58
February ...	...	2	27	...	23	5	57
March ...	...	4	29	1	8	5	47
April ...	...	3	13	2	9	5	32
May ...	...	...	19	1	5	5	30
June ...	...	...	7	...	12	1	20
July ...	...	...	5	...	11	8	24
August ...	...	1	6	...	16	2	25
September ...	...	2	15	...	15	2	34
October ...	...	6	22	1	15	9	53
November ...	...	10	32	...	17	...	59
December ...	...	5	12	...	11	6	34
Totals ...	...	38	214	7	158	56	473

The next table shows the number of cases of each disease notified yearly, since notification became compulsory, and the rate per cent. which the total number reported bears to the population of the Borough.



YEAR	Small-pox	Cholera	Typhus Fever	Enteric Fever	Scarlet Fever	Continued Fever	Puerperal Fever	Relapsed Fever	Diphtheria	Erysipelas	Chicken-pox	Membranous Croup	Total	Rate percent-age of population
1883	2 ...		2	108	158	43	2	1	14 ...				330	·43
1884	1 ...		1	69	269	24	4	4	13 ...				385	·50
1885	7 ...		1	56	214	22	1	...	25 ...				326	·42
1886	3 1		...	57	124	7	5	...	59 ...				256	·32
1887	1 ...		1	66	727	8	7	...	26 ...				836	1·05
1888	1 ...		1	36	440	16	1	...	29 ...				524	·65
1889	2 ...		...	94	153	18	1	3	31 ...				302	·37
1890	... ..		...	67	328	8	8	1	62 ...				474	·58
1891	... 1		...	99	429	14	5	2	23 ...				573	·68
1892	159 ...		1	56	256	9	4	2	71 ..				558	·66
1893	346 5		...	69	150	5	6	...	57 ...				638	·69
1894	16 ...		...	52	114	3	6	...	43 ...				234	·25
1895	... ..		...	58	52	3	4	...	29 ...				146	·15
1896	... ..		...	105	44	2	4	...	37 ...				192	·20
1897	... ..		...	78	476	1	8	...	67 ...				630	·66
1898	... ..		...	79	626	1	9	...	23 ...				738	·76
1899	... ..		...	92	762	2	3	...	58 ...				917	·93
1900	2 ...		5	79	330	1	4	3	41 1				466	·46
1901	3 ...		...	67	736	...	1	...	61 15				883	·83
1902	1 ...		...	65	452	1	3	...	37 27				586	·55
1903	130 ...		...	61	320	2	1	...	50 81	328			974	·91
1904	80 ...		...	47	486	...	9	...	80 73				775	·72
1905	49 ...		...	50	338	...	6	...	87 54				584	·54
1906	... ..		...	38	214	...	7	...	158 56				473	·43

It will be seen on referring to the above table, that the total number of infectious cases reported within the Borough has been gradually falling since the year 1903. This is chiefly accounted for by the less prevalence of Scarlet fever and Typhoid fever. Only 38 cases of Typhoid fever were reported during the year, and this is the smallest number notified during any year, except 1888, since notification was compulsory. In the year 1888, however, the population of the Borough was only 80000, whereas the estimated population for the past year was 108000, consequently the attack rate of Typhoid fever per 1000 of the population during the past year was considerably below that of the year 1888, and may truly be considered the lowest on record.

Only 214 cases of Scarlet fever were reported during the year. This disease has been very prevalent in the Borough during the past ten years, but the number of notifications received during 1906 was less than that received during any one year, since the year 1896.

When we turn to Diphtheria, however, the figures are not so satisfactory, as there has been an increase each year in the notifications of this disease since 1902, and the number of notifications received during the year under notice was almost double that of any previous year since notification became compulsory.

Diphtheria is a disease which formerly was most prevalent in rural districts, but during recent years the tendency has been for it to become more prevalent in large centres of population. It is difficult to account for this, and if this increased prevalence continues, the results are serious to contemplate, because the disease is generally attended with considerable fatality.

## Causes of Death.

In the following table, the causes of death in the Borough of persons belonging thereto, during the year 1906, are classified.

CAUSES OF DEATH.					Number.
Small-pox	...	...	...	...	0
Measles	...	...	...	...	53
Scarlet Fever	...	...	...	...	6
Whooping-cough	...	...	...	...	6
Diphtheria and Membranous Croup	...	...	...	...	42
Enteric Fever	...	...	...	...	4
Epidemic Influenza...	...	...	...	...	10
Diarrhœa	...	...	...	...	31
Enteritis	...	...	...	...	14
Puerperal Fever	...	...	...	...	3
Erysipelas	...	...	...	...	5
Other Septic Diseases	...	...	...	...	4
Phthisis	...	...	...	...	122
Other Tubercular Diseases	...	...	...	...	43
Cancer, Malignant Diseases	...	...	...	...	102
Bronchitis	...	...	...	...	140
Pneumonia	...	...	...	...	147
Pleurisy	...	...	...	...	2
Other Diseases of Respiratory Organs	...	...	...	...	16
Alcoholism, Cirrhosis of Liver	...	...	...	...	20
Venereal Diseases	...	...	...	...	2
Premature Birth	...	...	...	...	39
Diseases and Accidents of Parturition	...	...	...	...	14
Heart Diseases	...	...	...	...	179
Accidents	...	...	...	...	26
Suicides	...	...	...	...	2
Diseases of Brain and Nervous System	...	...	...	...	169
Diseases of Digestive System	...	...	...	...	54
Diseases of Urinary System	...	...	...	...	58
Congenital Malformation	...	...	...	...	15
Convulsions	...	...	...	...	38
Old Age	...	...	...	...	149
All other causes	...	...	...	...	159
All causes	...	...	...	...	1674



### Smallpox.

The Borough continued free from this disease throughout the year.

### Scarlet Fever.

This disease was less prevalent than has been the case for the past ten years, but was present more or less in the Borough, throughout the year.

The largest number of cases occurred during the first quarter of the year, while during the summer months of June, July, and August, comparatively few were reported. The numbers however increased slightly in September, and also during the last quarter of the year.

There were altogether, 214 cases reported, against 338 during the previous year.

The following table shows that while the average attack rate of this disease per 1000 of the population has remained about the same during the past eleven years, the mortality from the disease has gradually fallen, which so far, must be considered satisfactory.

Period	Average No. of Cases of Scarlet Fever per annum notified	Average Population	Average attack rate per 1000 population	Average case Mortality per cent. attacked
1885-9	331	79,207	4·1	6·1
1890-4	255	86,808	2·9	5·8
1895-9	392	95,755	4·0	3·4
1900-4	465	105,211	4·4	3·4
1905-6	276	107,750	2·5	3·0



The following table gives the number of cases notified during each month of the year.

Scarlet Fever	January	February	March	April	May	June	July	August	September	October	November	December	Total
Cases notified ...	27	27	29	13	19	7	5	6	15	22	32	12	214

Of the above 214 cases, 6 died, which gives a death-rate of  $\cdot 05$  per 1000, and a case mortality of 2·8 per cent. of those attacked. During the previous year the deathrate was  $\cdot 1$ , and the case mortality 3·2 per cent.

### Fever.

The Borough has remained entirely free from Typhus fever for many years, No cases of Continued fever either were reported during the year, so that all the cases notified under this heading were of Typhoid or Enteric fever. There were a total of 38 cases reported, against a total of 50 during the previous year.

During the month of November last, ten cases were reported, which was the largest number notified during any month of the year. Cases cropped up in each month of the year, except May, June, and July, during which the Borough remained quite free from this disease.

The following table gives the sanitary conditions connected with, and the probable or assigned causes of the notified cases of Typhoid fever.

Disease	Number of Cases reported	Drainage		Ventilation		Old Middens	Goux Closets	Water Closets	Probable or assigned cause		
		Good	Bad	Good	Bad				No trace	From Bad Drains	From a cold
Typhoid Fever	38	34	4	38	...	...	25	13	30	1	7

Oysters taken from beds that are liable to be polluted with sewage, and also other shell fish taken from the sea at points near sewage outlets, no doubt act as carriers of Typhoid fever, and while greater care is now exercised in this direction in order to protect these fish from sewage pollution, yet I have no doubt that a few of the above cases owed their origin to this source, because in two or three instances I found the eating of shell fish previous to the onset of the disease, corresponded with the ordinary incubation period.

Apart from one or two causes, such as the above, and apart from a polluted water supply such as occurred in Lincoln and other towns within recent years, there is no doubt that the attack rate and deathrate from a disease like Typhoid fever are a fairly good index to the sanitary condition of a town. In a community where

the attack rate and deathrate from Typhoid fever continues high year after year, the sanitary condition in which that community dwells is almost certain to be defective, but where the attack rate and deathrate remain repeatedly low, and where they shew signs of diminishing from year to year, this points to a progressive improvement in sanitary matters, and indeed, little better evidence than this can be brought forth in proof thereof.

During the year under notice, both the attack rate and the deathrate from this disease are the lowest on record.

During the past 8 years, there has been a decided and continuous fall, both in the number of cases of this disease reported in the Borough, and the number of deaths therefrom, as the following table will show.

YEAR.	Number of Cases Reported.	Number of Deaths
1899	92	22
1900	79	20
1901	67	15
1902	65	14
1903	61	11
1904	47	10
1905	50	9
1906	38	4

The above figures speak for themselves and must be regarded I think, as very satisfactory, although no effort must be spared in the future, to so improve our sanitary conditions in order that the progressive fall in this disease may be maintained.



I have no doubt we owe a good deal in this direction to the early removal of the old privy middens, from the densely populated parts of the town, and the substitution therefor, of the "Goux" closets. This change prevented the pollution of the soil, in the neighbourhood of habitations, and also ensured the early and regular removal of night soil.

Of the above 38 cases, four ended fatally. This gives a deathrate of  $\cdot 03$  per 1000, and a case mortality of 10 per cent. of those notified, against a deathrate of  $\cdot 08$  per 1000, and a case mortality of 18 per cent. during the previous year.

### **Diphtheria.**

Unfortunately, what is true regarding Typhoid fever, cannot be said of Diphtheria, because during the past five years there has been a continued increase in the number of cases of this disease in the Borough, as the following table will show.

YEAR.	Number of Cases Reported.	Number of Deaths.
1902	37	8
1903	50	10
1904	80	17
1905	87	17
1906	158	42

It will be seen from the above table, that the year under notice shows a serious increase of this disease in the town, and from the bacteriological examinations which I have made of secretions from the throat, I fear that the microbe of Diphtheria, has for some cause or other, become more wide-spread in our midst.



Although the disease has been more or less prevalent in the Borough throughout the year, the cases have been scattered practically over the whole of the Borough, and the disease has not been epidemic. There is however, the fear lest it may become so in the future, and this fact should not be lost sight of, especially by parents, and teachers in our elementary schools.

We have also been on the alert, especially so far as the milk supply is concerned, but we have been unable to trace any cases to this source, and only in a few instances have we been able to discover that a previous case has been the source of infection.

In view of these facts, I hope more advantage will be taken in the future, of the public health laboratory, and that a larger number of swabs, from suspicious sore throats will be sent for examination, in order that we may be able to form some opinion as to the prevalence of this disease, and possibly gain useful and early information of any threatened outbreak thereof.

The following table gives the sanitary conditions connected with, and the probable or assigned causes of the notified cases of Diphtheria.

Disease	Number of Cases reported	Drainage		Ventilation		Old Middens	Goux Closets	Water Closets	Probable or assigned cause					
		Good	Bad	Good	Bad				No Trace	From bad drains	From a cold	From other cases in the neighbourhood	From other cases in same house	Contracted at School
Diphtheria..	158	142	16	158	...	5	129	24	131	7	4	8	6	2

Of the 158 cases, 42 died, giving a deathrate of  $\cdot 38$  per 1000, and a case mortality of 26 per cent. against a deathrate of  $\cdot 25$  per 1000, and a case mortality of 31 per cent. during the previous year.

### **Erysipelas.**

There were 56 cases of this disease reported during the year, and five of that number died. The number reported during the previous year was 54, of which two died.

### **Measles.**

The Borough was practically free from this disease during the months of January and February, but in March an outbreak occurred in Ovenden, which necessitated the closure of the Infants' Department of Moorside School. The disease gradually spread towards Lee Mount, and from thence it spread to the Borough, so that by the month of June, the epidemic became widespread. The months of June and July were the period of the greatest prevalence of the disease, and it had spread so rapidly that it had necessitated the closure of the Infants' Departments of 12 schools.

Measles is a highly infectious disease, especially among the very young, and is most difficult to control. This arises partly from the fact that it is highly infectious before it is possible to diagnose its true nature, but also because of the carelessness of parents who frequently regard this as a trivial disorder, and allow those suffering from the disease to mix with the healthy, and thus it spreads. Much greater care ought to be exercised by parents, whose children are suffering from this disease. More deaths occur each year from this disease than from

almost any other infectious disorder, and these deaths chiefly occur among children who are under five years of age. Children above that age, though susceptible to the disease, rarely die therefrom, consequently every possible effort should be put forth to prevent the very young from being attacked with this complaint, because every successive year of age, even if it does not bestow immunity upon the child, at least confers upon it a much greater freedom from a fatal issue, should it be attacked thereby.

The epidemic gradually abated, and during November and December, the town remained practically free from the disease.

There were in all, 53 deaths, which gives a death-rate of  $\cdot 49$  per 1000, against deathrates of  $\cdot 009$  and  $\cdot 41$  per 1000, during the previous two years.

### **Whooping Cough.**

This disease was not present in the Borough to any serious extent throughout the year, and the cases which did occur were chiefly confined to the first half of the year.

The disease caused six deaths only, against 32 during the previous year. All the above six deaths, as well as 31 of the 32 deaths during the previous year, were of children under the age of five years. Whooping Cough, like Measles, is chiefly fatal to those attacked under that age period, hence the importance of protecting the very young from exposure to the infection of this complaint is most apparent.

The above deaths give a deathrate for the year of  $\cdot 05$ , against a deathrate of  $\cdot 29$  during the previous year.



## Diarrhoea.

There were 31 deaths registered in the Borough during the year, from those causes which are classified under Diarrhoea, against 15 during the previous year. This represents an increase of over 100 per cent., but 1906 appears to have been a year more favourable than usual to the prevalence of this disease, and the deathrate throughout the country was higher than during the previous year.

Of the above deaths, 16, or more than half, occurred during the month of September, and it was not until September 5th, that the four foot earth thermometer reached 56°. It would appear therefore, that the period of greatest prevalence of the disorder, more or less coincided with a high ground temperature, during the year under notice. Such was not the case however. During the previous year, when the four foot earth thermometer fell below 56° early in August, and yet in that year the majority of deaths from this disease occurred during the month of September, and in referring to previous years it appears that September is usually the month when the greatest mortality from this disease occurs, even apart from the earth temperature.

The following table serves to compare the Diarrhoea deathrate, with the average of other towns, and with England and Wales.

	Deathrate per 1,000.
England and Wales ... ..	0·87
76 Great Towns ... ..	1·16
141 Smaller Towns ... ..	0·94
England and Wales, less the 217 Towns	0·52
<b>Halifax</b> ... ..	<b>0·28</b>



It will be observed from the above table, that the deathrate from Diarrhœa in Halifax, is considerably below that of England and Wales less the 217 towns, or what may be called rural England.

Our Diarrhœa deathrate is also the lowest of the 33 great towns, Brighton coming next with a deathrate of  $\cdot 55$  per 1000, or nearly double that of Halifax, therefore, notwithstanding the increase in the number of deaths from these disorders, the deathrate of the Borough bears a most favourable comparison with that of other towns.

The 31 deaths from this disease, gives a deathrate for the year of  $\cdot 28$  per 1000, against a deathrate of  $\cdot 14$  during the previous year.

The deathrates from this cause, of the other Yorkshire great towns, for the year under notice, were as follows: Leeds,  $\cdot 97$ ; Sheffield,  $1\cdot 75$ ; Bradford,  $\cdot 92$ ; Hull,  $1\cdot 55$ ; Huddersfield,  $\cdot 72$ ; York,  $\cdot 94$ ; and Rotherham,  $1\cdot 52$  per 1000 respectively.

### **Influenza.**

There were 10 deaths during the year in the Borough, which were certified to be due to Influenza, against 18 during the previous year.

### **Respiratory Diseases.**

The diseases included under the above heading are Bronchitis, Pneumonia, and Pleurisy, and 289 deaths resulted from these causes during the year, against 286 during the previous year.

The number of deaths from each of the above diseases was as follows:—Bronchitis, 140; Pneumonia, 147; and Pleurisy, 2; which give a deathrate of  $2\cdot 6$

per 1,000, exactly the same as that for the two previous years, although three more deaths actually took place, but that number is too small to affect the deathrate.

The Respiratory deathrates for the previous six years were 2·6, 2·6, 2·8, 3·1, 3·0, and 3·7 per 1,000 respectively.

This deathrate has now remained at the present level for three years. It is the lowest yet recorded, and there had been previously a gradual fall in this deathrate. It is so far satisfactory, but it is to be hoped that we have not yet reached such a low limit beyond which improvement is impossible. I think it is possible to lower this figure still further if greater attention were paid to children under five years of age, because I observe that no less than 73 deaths occurred during the past year among children of these tender years.

The following table gives the number of deaths from Respiratory diseases during each month of the year under notice, and the four previous years, also the average of these years.

Deaths from Respiratory Diseases	January	February	March	April	May	June	July	August	September	October	November	December	Total
1906	32	28	27	29	29	14	11	18	10	30	28	33	289
1905	48	26	31	24	24	16	7	8	9	29	31	33	286
1904	38	28	25	28	18	20	13	10	13	23	26	43	285
1903	39	29	30	34	29	18	16	15	14	21	24	40	309
1902	35	46	38	30	22	23	21	16	15	15	30	37	328
Average ...	38	31	30	29	24	18	13	13	12	23	28	37	...

### Phthisis.

There were **122** deaths from Consumption of the Lungs registered during the year, against **135**, **134**, and **133** during the previous three years. This gives a deathrate of **1·12** per 1,000, which is the lowest deathrate from this disease since the year **1902**, that year being the lowest on record for the Borough.

Other forms of tubercular disease caused **43** deaths during the year, which, added to the **122** deaths from Phthisis, make a total of **165** deaths due to the various forms of tubercular disease.

This gives a total deathrate from all tubercular diseases, of **1·5** per 1000, against **1·7** during the previous year, which is the lowest deathrate from tubercular diseases yet recorded in the Borough.

It is gratifying to note that the deathrate from Phthisis is steadily declining, and the following table shows the progress that is being made in that direction in Halifax.

	Average Deathrate from Phthisis.
Ten Years - 1881-1890	2·00
Ten Years - 1891-1900	1·50
Six Years - 1901-1906	1·21

I have never thought it worth while to advise your Committee to adopt voluntary notification of this disease, because so far as I have been able to ascertain, the results of voluntary notification in other towns has not



been a great success. I believe, however, that compulsory notification of this disease would be a most useful step to take, and would materially help us in carrying out the various preventative measures that are likely to be successful in ultimately stamping out the disease.

We attempted a few years ago to make this a compulsory notifiable disease, but our efforts did not meet with success. The question, however, is making progress, and I have no doubt that in the course of a short time the Local Government Board will come to see the advisability and the necessity of compulsory notification in dealing with this disease.

We keep a Register of all cases which come to our knowledge, and the number registered during the year was 86, of which 53 were males, and 33 were females. In 11 out of the houses in which the above 86 cases had occurred, there had been a previous case within a recent period. In one family there were two previous cases, and in another three.

We continue to supply pocket spittoons free of charge, to all those who are in need of the same, and in case of a death, or removal to hospital or elsewhere, of persons suffering from the disease, we offer disinfection. There were in consequence, 61 houses disinfected after death, and three after removal to hospital. In 16 cases, disinfection was refused, but we find that people are now more anxious to have their rooms disinfected, and some even come to ask to have it done. This seems to point to a healthy growth in public opinion, and a desire on their part to do what is possible to stamp out this terrible disease.



## Cancer.

Included under the above heading are deaths from all the various forms of malignant tumours, and during the year 102 deaths resulted from these causes, against 105 during the previous year. This gives a deathrate of  $\cdot 94$  against  $\cdot 97$  for 1905.

Thus the Cancer deathrate is slightly below that of the previous year, but it has not varied very much during the past 15 years, as the following table will show.

YEAR.	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906
Death-rate.	$\cdot 8$	$\cdot 7$	$\cdot 8$	$\cdot 8$	$1\cdot 1$	$\cdot 6$	$\cdot 6$	$\cdot 7$	$\cdot 7$	$\cdot 8$	$\cdot 8$	$1\cdot 0$	$\cdot 8$	$\cdot 9$	$\cdot 9$

Notwithstanding the extensive and elaborate researches that have been and are still going on, with a view to the elucidation of the origin of this terrible disease, nothing definite has yet been established as to the true nature of its cause.

## Deaths from Violence and Uncertified.

The following table, which is taken from the Report of the Chief Constable, gives the number of Inquests held during each month of the year, and shows the total number to have been 110, eleven of which were held on persons belonging to districts outside the Borough.

Inquests in the Borough during the Year.

VERDICTS.		January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Accidental Deaths	...	3	3	1	1	3	2	1	1	4	...	2	...	3	...	1	1	3	...	4	1	1	1	1	2	27	12
Natural Causes	...	3	...	7	...	...	7	4	2	2	5	1	2	1	1	...	1	...	4	1	1	4	1	4	2	30	22
Suicide by various means	...	...	...	...	...	1	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	3	1
Other Verdicts	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	3	2
Total	1906	6	3	8	3	5	10	5	5	6	5	3	2	5	1	1	2	3	...	9	2	6	2	6	4	63	37
"	1905	8	4	4	3	6	4	9	2	7	6	5	5	4	2	3	1	5	2	5	11	6	3	9	3	72	46
"	1904	6	7	4	8	7	5	8	4	5	3	3	2	4	3	6	3	5	...	9	1	7	4	4	4	65	49
"	1903	10	6	7	2	6	1	12	5	7	...	1	1	7	2	3	3	4	...	13	3	8	7	8	5	88	39
"	1902	8	5	7	4	7	6	1	3	11	5	3	...	5	4	3	4	12	6	4	2	6	7	7	5	75	45
"	1901	5	1	8	...	7	2	6	1	4	2	6	1	6	...	5	1	3	4	8	4	6	6	6	2	70	22
"	1900	8	2	3	3	4	2	4	...	4	2	5	...	2	3	6	3	...	4	3	5	5	5	5	3	56	24
"	1899	4	3	1	3	3	5	7	2	7	1	4	2	11	2	4	...	3	...	4	2	1	...	4	1	53	21
"	1898	5	6	5	2	5	4	1	6	5	5	10	...	5	1	7	2	2	1	1	2	...	2	7	1	64	26
"	1897	5	3	7	1	5	2	3	3	5	4	4	1	3	4	3	...	1	3	7	3	4	8	8	55	34	

The 79 deaths certified by the Coroner after inquests are equal to 4·7 of the total deaths in the Borough, and the 13 deaths which were neither certified by a medical practitioner nor the Coroner, is equal to ·7 of the total deaths.

The following table gives the percentage for the past five years.

Years	1901	1902	1903	1904	1905	1906
Percentage certified by Coroner ...	2·6	2·9	3·1	2·8	3·5	4·7
Percentage uncertified ...	3·4	2·6	1·5	1·0	0·7	0·7

The above table shows that while the percentage of uncertified deaths is the same as the previous year, there has been a marked fall in the percentage of these deaths during the past six years.

### **Sewerage and Drainage.**

The sewers throughout the main portion of the Borough are mostly in a good and satisfactory condition, and the alterations and reconstruction of house drains, which goes on from year to year, has led to a marked improvement in this direction.

There are still quite a number of houses in Warley, which have not yet been connected up to the new sewers in that district.

New sewers have been constructed in Copley ward, and a scheme for the drainage of Northowram ward, has been approved by the Council.

The filter beds connected with the outfall works at Salterhebble are, I understand nearing completion.



## **Scavenging, Disposal of Night Soil and House Refuse.**

The Scavenging, cleansing, and watering the streets, is carried out by the Health Committee, and the work, I believe, has been satisfactorily done during the year.

There are 17,823 Goux closets, and 5,317 Water closets in the Borough, so that the greater part of the night soil, is still dealt with under the Goux system.

The increase in the number of Goux closets during the year was 162, against 232 during the previous year, and the increase in the number of Water closets was 160, against 166 during 1905.

During the year the Corporation has decided to compel the provision of water closets in all new houses, and also where conversions from the privy system becomes necessary, in all cases where there is a sewer, and a water supply sufficient for the purpose.

There are at present 878 privy middens in the Borough, a decrease of 43 during the year, and 454 dry ashpits, against 484 a year ago, a decrease of 30 during the year.

## **Water Supply.**

The water supply of Halifax is derived from five separate valleys, the Hebble, the Luddenden, the Widdop, the Greave, and the Walshaw Dean. The collecting ground, or drainage area of the reservoirs, comprises over 4,800 acres, and is chiefly moorland, or high mountain pasture, and of the millstonegrit formation. The water is stored in seven storage, and six service reservoirs, having a capacity of 1,345,952,000 gallons.



The three new reservoirs, which are at present being constructed at Walshaw Dean, are nearing completion.

The water is delivered in the town at a high pressure, and with a constant supply.

The supply was ample throughout the year, and was of excellent quality.

The water coming as it does chiefly from high moorland, is very soft, and liable to contain an excess of peaty acids. This is more especially the case with regard to Ogden reservoir, which supplies certain portions of the town. This water has now been satisfactorily treated with chalk and lime, for several years.

The following table shows the average acidity of the samples of Ogden water, taken monthly, before and after treatment, and the figures are those which have been furnished by Mr. Dewhirst, the Borough Analyst.

Month			Average Acidity of Sample of Water.	
			Taken from Reservoir	Taken after Treatment and as supplied to the Consumer
January	...	...	No estimation	No estimation
February	...	...	·95	·15
March	...	...	·90	·08
April	...	...	No estimation	No estimation
May	...	...	No estimation	No estimation
June	...	...	No estimation	·10
July	...	...	No estimation	No estimation
August	...	...	1·10	·15
September	...	...	No estimation	No estimation
October	...	...	·7	·15
November	...	...	1·00	·22
December	...	...	No estimation	·01

The following table gives the average monthly acidity of the water in Ogden reservoir during the past six years.

OGDEN WATER.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Six Years' average	·83	·93	·95	·73	·75	·64	·65	·76	·68	·78	·89	·90

The water supplying the main portion of the town, flows from the storage reservoirs, into Ramsden Wood reservoir, in which it is mixed, and this mixing acts beneficially in reducing the acidity thereof. The mixed water however still contains a certain amount of acidity, and this water is now also treated with chalk and lime.

The following table gives the average monthly acidity of the water in Ramsden Wood reservoir, before and after treatment.

Month			Ramsden Wood Reservoir	
			Before treatment	After treatment
January	...	...	No estimation	·26
February	...	...	·30	·15
March	...	...	·20	·19
April	...	...	·50	·24
May	...	...	No estimation	·25
June	...	...	·30	·24
July	...	...	No estimation	·25
August	...	...	·35	·20
September	...	...	·35	·23
October	...	...	·45	·33
November	...	...	·30	·25
December	...	...	·60	·31

From the above table it will be seen that the acidity of this water is reduced quite 50% by the treatment applied. I should, however, like to see the acidity very much further reduced, and I understand that one reason why this has not been the case during the past year, is that the machinery was not fully capable of dealing with such a large quantity of water, and that at times it became clogged. I am informed, however, that such additions are being made to this machinery, that in the future, it will be possible to cope with this large water supply, in a more efficient manner, and I am expecting that a greater reduction in acidity of the water will be the result.

I am of opinion that the water supply to the town should be as near neutral in reaction as possible.

No case of lead poisoning has come to my knowledge during the past year.

### **Common Lodging Houses.**

There are now 13 Common Lodging Houses in the Borough, against 16 which were in existence during 1905, and they are registered to accommodate 657 lodgers. There has therefore been a decrease of 3 during the year.

These houses are chiefly under the supervision of the Police, and I find from a return, in the Annual Report of the Chief Constable, that the Regulations have been fairly well observed during the year, and that no prosecution has been necessary, for non-compliance therewith.

The Lodging Houses have also been visited regularly by Inspector Archbell, and there has been no cause for complaint regarding these houses during the year.



## Dairies, Cowsheds, and Milkshops.

The Dairies, Cowsheds, and Milkshops, are under the supervision of the Meat Inspector, J. T. Millington, except so far as those situated in Warley and Illingworth wards are concerned, the latter being under the supervision of District Inspector R. Pickard. I have also visited a large number myself, for the purpose of giving advice regarding necessary alterations and other purposes.

The number at present on the Register is as follows :—

Cowsheds	...	...	...	504
Milkshops	...	...	...	75
Total	...	...	...	<u>579</u>

The total for the previous year was 575, being an increase of 4.

The number of Dairy Farmers and Purveyors of Milk on the Register is 418, against 434 for the previous year, being a decrease of 16.

The improvements which we are endeavouring to bring about in the condition of the cowsheds in the Borough, in so far as their structure is concerned, is only slow in its progress. The farmers being of so conservative a nature, stick to their old ideas, and do not readily take advantage of the improvements that have been made. We, however, continue to press for these improvements, and were enabled to secure the alteration and reconstruction of 16 cowsheds during the year, which, together with 58 previously reported on, make a total of 74 cowsheds dealt with, since the present Regulations came into force.

I have frequently called attention to the want of greater cleanliness on the part of the cowkeeper, both in my Annual Reports, and elsewhere, and although rather more attention is now possibly paid to these matters, there is still great room for improvement. The farmer deals in a food which is perhaps the most important among the various articles of diet, at any rate, it is one which most readily lends itself to contamination, and when contaminated, microbes will more readily grow therein, than perhaps in almost any other substance used as food. Although these are facts which cannot be denied, many farmers are very careless in this direction, very few of them think of grooming their cows, though most of them do so in the case of their horse. Many of the cowsheds are not cleansed in the way they should be, and as to how many thoroughly wash their hands, and how many make any attempt at cleansing the udder of the cow before they proceed to milk, it is impossible to say. Even the health of the cow, which is necessary to the production of a wholesome milk, is not properly considered and attended to by the farmer. His chief endeavour is, as he says, to keep the cows warm, and he does this by carefully stuffing up every little opening through which fresh and pure air can find access to the cows. Consequently the air in the cowshed becomes charged and saturated with the moisture which is given off in the breath of the cow. This condenses on the ceiling and walls of the cowshed, and thus the cows are kept warm in a kind of turkish bath, produced by the impure exhalations from their own body. They must of necessity breath over and over again, a polluted air, air poisoned with deleterious substances given off from their own breath. Amidst such conditions cows cannot be healthy, and yet this is the farmers idea of keeping them warm.

The conditions above described, are most favourable to the development of Tuberculosis, and there is no wonder that this disease spreads under these circumstances.

The farmer appears to look upon his cow, as a sort of machine to give milk. The more milk he can get from it the better, regardless of its health, though in my opinion he loses more, through the breaking down in the health of the cow, and the possible shortening of its life, by keeping the cow in these surroundings, than he gains in the increased amount of milk which he believes they give.

The question of Tuberculosis in milch cows, and the ventilation of cowsheds, has assumed an aspect of much greater importance, since the publication of the facts laid down in the second interim Report of the Royal Commission on Tuberculosis. In the future, more attention will have to be paid to this question, a stricter supervision of cattle will be absolutely necessary, and it behoves the farmer to do his best to put his house in order, by studying the best means of securing the healthy condition of his cows. And this investigation, to be successful, must be taken up altogether apart from his old and preconceived notions and ideas.

These notions and ideas he has inherited from his fore-fathers, he has never put any improved methods to a practical test, consequently he cannot know whether his old and cherished notions regarding the necessity of keeping the cows warm are actually true in fact, and he might find on further investigation that such is not the case. He might find that the present artificial conditions under which he keeps his cows, is not conducive to the best results, and that the more natural the environment,



the greater success would he achieve, both in the health of the animal, and the quantity of milk produced. At any rate, these points are surely worthy of thorough investigation.

There is also, no doubt, that the report of the Royal Commission above referred to will lead to further legislation in connection with the milk supply, but legislation alone will not be able to achieve a great deal, for it seems to me to be almost impossible, either to make a farmer clean, or even ventilate his cowshed regularly, by Act of Parliament. Something more than this is needed, viz :- a sense of responsibility and a sense of duty on the part of the farmer.

Some have suggested municipalisation of our milk supply, as being a remedy for its present condition. I doubt if this would be practicable for many reasons. Others again suggest the establishment of milk Depots, and no doubt such Depots have done considerable good in those towns in which they have been instituted, but I am doubtful if the milk supplied therefrom finds its way into those houses where it is most needed.

While I doubt the wisdom and practicability of the municipalisation of the milk supply of the country generally, yet I believe the establishment of Municipal farms in various centres for teaching purposes would be a useful step to take. Why should there not be a model farm in connection with our Technical School for instance? In this Institution, students are taught the art of Engineering, Weaving, Spinning, and other branches of industry, why therefore should not the farmer be taught the scientific and technical part of his calling? The farmer lacks knowledge on these points,

he needs enlightenment. In my opinion, such a training would eventually lead to a marked improvement in the condition of our milk supply, because it would be a means of establishing on the part of the farmer, a greater sense of duty and responsibility, qualities that are necessary and essential in order to secure the improvements which we so much desire.

The Inspectors between them paid 1,200 visits to the cowsheds, as well as 149 visits to the various milk-shops in the Borough.

The following table gives the number of defects found, together with the number remedied.

Nature of Defects	Number Reported	Number Remedied
Want of Light ... ..	25	15
Do. Airspace ... ..	21	13
Do. Ventilation ... ..	22	11
Defective, Made-up, and Untrapped Drains ... ..	31	36
Defective Floors ... ..	18	18
Dirty Floors and Stands ... ..	42	45
Cowsheds requiring Limewashing ...	40	45
Offensive and Defective Cesspools ...	3	5
Improper position of middensteads...	8	7
Pigs kept in Cowsheds ... ..	4	4
Accumulations of Manure... ..	7	7
Manure Tanks built ... ..	...	2
Totals for 1906 ...	221	208
No of Defects on books Jan. 1st, 1906	201	
Total ...	422	
No. of Defects on books Dec. 31st, 1906	214	

During the year, 893 cows were individually examined, against 417 during the previous year. Four were found to have diseased udders. The details of these inspections are set out in the following table.



INSPECTION OF CATTLE.

Date of Inspection.	Cattle and Condition				Condition of Shed	Remarks
	No. of Folio.	No. of cows Examined	Udders diseases	General Condition		
1906.						
Jan. 2	284	14		Good	Fair; light moderate	Cow with Mammitis recovering; no milk
" 2	284	5	1	"	Poor; insufficient light and air space	
" 3	285	4		Moderate	Good	
" 3	285	12		Fair	Insufficient light and ventilation	
" 3	285	27		Good, but rather overcrowded	Moderate	
" 3	285	10		Moderate	Very fair Shed but rather dirty	
" 4	286	4		Fair	Satisfactory	
" 4	286	3		"	Poor Shed, wants altering	
" 4	286	3		"	Moderate	
" 5	287	4		"	Moderate; bad light	
" 5	287	5		"	Poor	
" 5	287	10		"	Good	
" 5	287	3		Moderate	"	
" 10	291	14		"	Moderate; dirty (3 sheds)	
" 10	291	4		Poor	Good	1 Poor Cow, possibly tubercular, but Udder sound
" 10	291	5		Good	2 Poor Sheds	
" 12	293	20		"	Very Fair	
" 12	293	13		"	"	
" 20	299	11		"	Good	
" 20	299	3		Moderate	Bad	Shed altered in October, 1906
" 20	299	14		Very Fair	Good	
" 30	308	6		"	"	
" 30	308	11		Good	8 Cows in Good Shed; 3 in Poor Shed	

Feb.	1	310	7	Moderate	1 Poor Shed and 1 moderate	Cow poorly; difficulty in breathing
"	1	310	8	Very Fair	2 Poor Sheds	Large Shed altered in July, 1906.
"	1	310	4	Poor	Good	Poorly Cow reported January 10th, fetched by Knacker to-day
"	9	317	4	Bad	Good	Owner recently died; Cows neglected
"	9	317	7	Excellent	Bad	To be altered next spring
"	21	327	8	Good	Good	
"	21	329	12	Good	Good	
"	21	329	5	Fair	Moderate	
"	21	329	6	"	"	
"	21	329	5	"	Moderate; insufficient light	
"	22	330	11	Good	Good	
"	22	330	3	Moderate	Poor Shed, too small	Midden too near
"	22	330	10	Fair	Fairly good	
"	22	330	2	"	Insufficient drainage; bad floor	Altered April, 1906.
"	22	330	6	Good	Bad	
"	22	330	21	"	Very Fair	
"	22	330	3	Fair	Bad	
"	24	2	6	"	"	
"	28	5	28	Very Fair	Moderate	Cow lost 2 quarters of Udder, other 2 seem right
Mar.	13	16	20	Moderate	Fair	Mammitis in hind quarters of Udder; on Nov. 13th this Cow developed acute inflammation in Udder and had to be slaughtered.
"	14	17	10	Good	Moderate	
"	14	17	13	"	"	
"	14	17	6	"	Poor	
"	21	23	7	Fair	Fair, but dirty	
"	23	25	10	Good	Very Fair	
"	23	25	14	"	Good, very clean	
"	28	29	11	Rather Poor	Fair; but insufficient ventilation	1 Cow short in breathing (soon recovered)

# INSPECTION OF CATTLE.—Continued.

Date of Inspection.	Cattle and Condition			Condition of Shed	Remarks
	No. of Folio.	No. of cows Examined	General Condition		
April 2	33	14	Moderate	1 Shed fair; the other too low	1 thin Cow, sold later on, destination unknown
"	2	33	Fair	Moderate	Slight inflammation in Udder of 1 Cow, recovered quickly
"	12	42	Very Good	Bad	
"	12	42	Fair	Fairly Good	
"	12	42	Poor	"	1 very thin Cow, Udder alright
"	20	45	Fair	Bad	1 Cow had bad time calving; improving nicely
"	23	47	Poor	Good	1 very poor Cow; on 16th May, with Owner's consent fetched Knacker to it and had it slaughtered
May 10	62	7	Fair	Moderate	Poor Cow mentioned in report of Feb. 1st, has been sold, destination unknown
"	11	63	Fair	Fairly Good	
"	16	66	Very ill, apparently inflammation in lungs; knacker fetched it next day		
July 5	108	9	1 rather bad in breathing; others in moderate condition		
"	26	119	Cow down after calving, slowly recovered, milk not used		
Aug. 17	142	11	Very Fair; 1 ill, acute lung affection	Moderate	Knacker fetched poorly Cow
"	17	142	Good	Very Fair	
Sept. 28	166	12	Moderate condition, 2 poorly, but improving		
Oct. 11	177	5	Fair	Poor	1 with cold in lungs; recovered shortly afterwards
"	17	182	Moderate	"	"



"	17	182	11	Good	Good	Thin Cow sold next day for 30/- to someone outside the Borough Cow down with milk fever, but getting on nicely, recovered end of month Cow recovering from slight inflammation in Udder
"	25	189	10	Fair	Moderate	
"	26	190	4	Moderate	Good; but not very clean	
"	26	190	3	Fair	Moderate	
"	26	190	4	"	Moderate; insufficient light	
Nov.	8	197	22	Good	Very Fair	
"	8	197	6	Fair	Moderate	
"	8	199	6	"	"	
"	6	199	14	Fair; in very thin Cow	"	
"	16	209	11	Very Fair; 1 ill	Fairly good	
"	22	214	10	Very Fair	"	Insufficient drainage and midden
"	23	215	17	"	"	
"	23	215	10	Good	Good	
"	23	215	5	"	Moderate	
"	23	216	4	Fair	Fairly Good	
"	29	221	12	Good	1 good Shed; 2 poor ones	
"	29	221	7	Fair	1 good Shed, but insufficient ventilation	
"	29	221	6	"	Very Poor Place	
Dec.	6	227	12	Moderate; 1 old, unthrifty Cow	Fair	
"	6	227	8	Excellent Condition	Bad Shed	
"	6	227	13	Good	Good	Too many Cows on; only proper room for 27.
"	6	227	2	Fair	Good Shed; just altered	
"	6	227	6	"	Very Fair	
"	6	227	3	"	Bad Shed; wants rebuilding	
"	9	230	28	Good	Very Fair	
"	9	230	6	"	Moderate	
"	13	233	4	"	Poor	
"	21	240	30	"	3 Moderate Sheds	
"	21	240	9	Fair	Good	
"	21	240	22	Good	Fairly Good	
"	21	240	11	Very Fair	Poor Shed	

## Slaughterhouses.

The private slaughterhouses are chiefly situated in districts which have been added to the Borough within recent years, and the number is nine.

These slaughterhouses are under the supervision of Meat Inspector J. T. Millington, who paid 174 visits thereto during the year. They have always been found to be kept in a satisfactory condition, and no complaints were found necessary throughout the year.

The public slaughterhouse which is in an old building, has been renovated by the Markets Committee, and put into a better sanitary condition. It is now possible to keep it in a cleaner state, and greater attention is paid to these matters than was formerly the case.

The Meat Inspector paid 1,076 visits thereto during the year.

The number of animals slaughtered in the Public Slaughterhouse during the year ended June 30th, 1906, is given in the following table.

Cattle.	Calves.	Pigs.	Sheep	Total.
4191	3942	6129	16785	31047

There were 277 separate seizures of meat during the year,

The following table shows the number of carcasses condemned, and the total weight of the same.

	Cattle.	Calves.	Pigs.	Sheep.	Total.
Number of Animals killed	4191	3942	6129	16785	31047
Do. condemned	15	23	29	7	74
Weight of those condemned in lbs. ...	9330	1290	3828	558	15006

The following table gives the diseases and other conditions which led to the condemnation of meat during the year.

	Tuberculosis	Rheumatism	Parturition	Septicæmia	Cadavers	Inflammatory Affections	Traumatic Pericarditis	Jaundice and Dropsy	Suppurative Arthritis	Milk Fever	Immaturity	Multiple Abscesses	Unsound	Unwholesome
Cows	6	...	...	1	...	2	1	1	...	1	...	...	3	...
Calves	...	...	...	2	...	4	...	...	1	...	4	...	12	...
Pigs	15	5	2	...	1	...	...	2	...	...	...	...	...	...
Sheep	...	...	...	...	4	2	...	...	...	...	...	1	...	...
Rabbits	...	...	...	...	...	...	...	...	...	...	...	...	...	17
Totals	21	5	2	3	5	8	1	3	1	1	4	1	15	17

Besides the above, the following were also destroyed.

	lbs.
Offals ...	5404
Fish " ...	9587
Fruit ...	754
Other Foods ...	886



Tuberculosis, as heretofore, was the chief cause of the seizure and destruction of meat, as the following table will show.

		lbs.
Total amount destroyed	...	21,645
Total amount of Meat destroyed		
on account of Tuberculosis	... 7,064	
Total amount of Offals destroyed		
on account of Tuberculosis	... 4,121	
Total amount destroyed on account	-----	
of Tuberculosis	... ..	11,185
Total amount destroyed from other causes	...	<u>10,460</u>

The greater part of the meat shown to have been destroyed, was done so, with the consent of the Owner.

No prosecutions were instituted during the year.

The following table shows the number of animals that have been killed in the Public Slaughterhouse, during the past eight years.

Year ended	Cattle	Calves	Sheep	Pigs	Total.
June 30th, 1899	5333	4208	20270	7019	36830
„ 1900	5530	4395	17245	7896	35066
„ 1901	4859	4089	16479	6924	32351
„ 1902	5312	5018	17802	5702	33834
„ 1903	4991	4422	17776	6599	33788
„ 1904	4290	3916	16788	6678	31672
„ 1905	4601	3558	17126	6696	31981
„ 1906	4191	3942	16785	6129	31047

## **Factories and Workshops.**

Considerable attention has been paid during the year to the administration of the Factory and Workshops Act of 1901. A large number of improvements have been made in connection with the sanitary conveniences, both in the factories and workshops of the Borough, and these improvements have been all secured without the necessity of having to resort to legal proceedings. In many cases it has only been necessary to call the attention of the owners to the defect, to secure its remedy, while in other cases the work has been done after the service of a notice.

A workshop register is duly kept, and any workshops discovered by the District Inspectors, and not recorded therein, are immediately notified to the Factory Inspector.

The workshops have been visited from time to time, and on the whole appear to be fairly well kept.

In regard to cleanliness, the largest number of complaints reported, were with regard to limewashing. This is a matter which does not seem to receive so much attention at the hands of the occupiers as it ought to do.

With regard to airspace, there was only one complaint of overcrowding, and in connection with ventilation, only four cases were reported where this was deficient.

The following table gives the number of visits that were made to factories and workshops, and shops under the Shop Hours Act, by the Sanitary Inspectors.

District	Number of Visits made to Factories	Number of Visits made to Workshops	Number of Visits made under Shop Hours Act
A	82	587	461
B	58	302	438
C	26	303	370
D	36	133	22
Total	202	1325	1291

A number of visits were also paid by myself during the year, both to factories and workshops, for the purposes of inspection and also for giving advice in special cases.

The tables which follow set out in detail the sanitary defects discovered and dealt with during the year. Each table represents a district, under the supervision of a District Sanitary Inspector.



## DISTRICT A.

INSPECTOR JAMES ARCHBELL.

Number of Workshops on Register, 223.

Nature of Defects.				Number Registered.
IN FACTORIES.				
Insufficient privy accommodation	...	...	...	19
Defective water closets	...	...	...	21
Defective drains	...	...	...	9
Closets to limewash	...	...	...	13
IN WORKSHOPS.				
Insufficient privy accommodation	...	...	...	14
Defective water closets	...	...	...	7
Defective drains	..	...	...	9
Want of Ventilation	...	...	...	3
Workrooms requiring limewashing	...	...	...	69
Total	...	...	...	164

## DISTRICT B.

INSPECTOR JOHN WOOD.

Number of Workshops on Register, 329.

Nature of Defects.	Number Registered.
IN FACTORIES.	
Insanitary closets ... ..	8
Defective flushing apparatus ... ..	8
Defective water closet drains ... ..	5
Nuisance from smoke . ... ..	4
„ gas engine exhaust ... ..	3
„ sewage ... ..	2
Defective soil pipes ... ..	2
IN WORKSHOPS.	
Rooms requiring limewashing ... ..	35
Insufficient privy accommodation ... ..	2
Defective water closets ... ..	2
Dirty closets ... ..	6
Overcrowded workroom ... ..	1
Bad smells ... ..	3
Defective drains ... ..	3
Defective urinals ... ..	5
Dilapidated closets ... ..	3
Total ... ..	92

## DISTRICT C.

INSPECTOR JAMES EDWARD FIRTH.

Number of Workshops on Register, 198.

Nature of Defects.	Number Registered
IN FACTORIES.	
Insufficient closet accommodation ... ..	1
Made-up troughing ... ..	1
Made-up urinal ... ..	3
Offensive fumes from gas engine ... ..	1
Closets requiring limewashing ... ..	4
Defective water closets ... ..	21
Broken gullies ... ..	2
IN WORKSHOPS.	
Defective, broken, and made-up lavatory drains	4
Insufficient privy accommodation ... ..	2
Dirty floors ... ..	2
Leaking syphon traps ... ..	2
Workrooms requiring limewashing ... ..	17
Dirty closets ... ..	12
Defective closets ... ..	2
Made-up urinal ... ..	1
Accumulation of rubbish ... ..	2
Total ... ..	77



## DISTRICT D.

INSPECTOR ROBERT PICKARD.

Number of Workshops on Register, 78.

Nature of Defects.	Number Registered.
IN FACTORIES.	
Dilapidated closets ... ..	2
Defective drains ... ..	2
Privies converted to water closets ... ..	5
Sink pipe to disconnect ... ..	1
Offensive urinal ... ..	1
Offensive accumulation ... ..	1
Insufficient closet accommodation ... ..	2
Made-up drains ... ..	3
Defective troughing ... ..	1
IN WORKSHOPS.	
Workrooms requiring limewashing ... ..	12
Dirty closets ... ..	1
Want of ventilation ... ..	1
Untrapped yard drain ... ..	1
Total ... ..	33

The total number of nuisances and sanitary defects shown in the previous tables is 366, against 248 during the previous year. Of the above 366 nuisances and

defects, 357 were remedied or abated, and 9 had not been abated at the end of the year.

Under Section 5 of the Factory and Workshops Act, the Factory Inspector notified a number of sanitary defects in connection with workshops. Due attention was given to these notices, and as a result, 12 of these defects were remedied in connection with workshops, one in connection with a laundry, and one in connection with a bakehouse. A formal notice of abatement was sent to the Factory Inspector, upon completion of the work.

According to Section 107 of the Factory and Workshops Act, the occupier of every Factory or Workshop, is required to send a list of Outworkers employed by him, on or before the 1st day of February, and the 1st day of August, of each year, to the Town Council. This requirement does not seem to be well understood by many whom it concerns, but we are taking steps in order to secure that this section shall in the future be more fully complied with.

The number of Outworkers notified during the year, were as follows.

	Tailors.	Shoe-makers.	Seam-stresses.	Total.
No. of Outworkers ...	36	3	1	40

The above were all residents within the Borough. Their houses were visited from time to time. No cases of Infectious disease were discovered, and the premises were found to be otherwise satisfactory.

A detailed list of all the workshops on the register in the Borough, is given on the following page.

Boot, Shoe, and Clog Makers ... ..	152	Fibrous Plaster Works	1
Dress and Mantle Makers	101	Joiners & Cabinet Makers	68
Saddlers ... ..	13	Brush Makers ... ..	13
Milliners ... ..	61	Provision Merchants ...	4
Cotton Doubler ... ..	1	Rag Sorters ... ..	11
Coopers ... ..	4	French Polishers ... ..	18
Bakehouses ... ..	166	Tailors ... ..	67
Flock Merchant .. ..	1	Marine Store Dealers ...	4
Silversmiths ... ..	4	Blacksmiths ... ..	24
Whitesmiths ... ..	5	Upholsterers ... ..	12
Coach Builders .. ..	4	Umbrella Makers ... ..	2
Rope Makers ... ..	4	Box Makers ... ..	2
Wood Carvers ... ..	5	Surgical Inst'm'nt Maker	1
Wool Sorters ... ..	9	Fruit Boilers ... ..	2
Cork Cutters ... ..	2	Paper Maker ... ..	1
Gun Makers ... ..	2	Hosiers and Knitters ...	22
Carpet Repairers ...	4	Wheelwrights ... ..	10
Picture Frame Makers	5	Painters ... ..	16
Wire Worker ... ..	1	Plumbers ... ..	27
Basket Makers ... ..	3	Printers ... ..	13
Tinners ... ..	15	Sweet Boilers ... ..	3
Locksmiths... ..	2	Tripe Dealer ... ..	1
Cutlers ... ..	1	Clog Sole Makers ... ..	2
Underclothing Makers...	12	Belt and Brace Makers	2
Blind Makers ... ..	4	Sewing Machine Maker	1
Electrical Engineers ...	2	Shirt Makers ... ..	2
Piano Makers ... ..	5	Watch Makers ... ..	14
Soap Maker ... ..	1	Old Clothes Dealers ...	3
Drysalter ... ..	1	Pattern Maker ... ..	1
Boot Upper Maker ... ..	2	Leather Cutters ... ..	2
Cycle Works ... ..	2	Sugar Packer .. ..	1
Tea Packers ... ..	3	Designers ... ..	4
Brass Works .. ..	4	Metal Engraver ... ..	1
Laundries ... ..	10	Beer Bottling ... ..	2
Hair Pad Makers ... ..	4	Hair Dressers ... ..	6
Machine Makers ... ..	3	Metal Polish Maker ...	1
Machine Broker ... ..	1	Herbal Brewery ... ..	1
Marble Masons ... ..	2	Carpet Beater ... ..	1
Shoeing Smiths ... ..	2	Chair Maker ... ..	1
Firewood Cutters ... ..	2		
Paper Bag Maker ... ..	2		
Total number of Workshops		...	994



## Bakehouses.

There were 166 bakehouses on the register, against 167 during the previous year, as will be seen from the following table, which also gives the number of visits paid thereto during the year.

Description of Premises.	Number on Register.	Number of visits made.
Wheat bread and muffin bakers, including confectioners ...	138	294
Oat bread and muffin bakers ...	28	

Of the above, 26 are underground bakehouses, the same number that was in existence during the previous year.

In consequence of the coming into operation of the Factory and Workshops Act, 1901, special attention was paid to the bakehouses in the Borough, and as a result there is now a considerable improvement in the sanitary conditions connected with the same.

In the matter of cleanliness, there is seldom or never any complaint to make in connection with those bakehouses in which females are employed, such bakehouses are invariably kept in a more cleanly condition. The largest number of complaints reported during the year, had reference to limewashing. Some occupiers seem to put off carrying out this necessary requirement as long as possible. In three cases dirty floors had to be complained of, and also in the same number of cases, an insufficiency of ventilation.

In all, 24 defects were reported during the year. These are set out in the following table, which also shows the number remedied.

Nature of Defects.				Number Reported.	Number Remedied.
Brought forward from last year	...			4	
Unsuitable cellar bakehouse...	...			1	1
Bakehouses requiring limewashing	...			12	12
Insufficient ventilation	...	...		3	2
Damp walls	...	...	...	2	1
Accumulation of rubbish	...	...	...	1	1
Dirty floors	...	...	...	3	3
Offensive smoke from chimney	...			1	1
Dirty utensils	...	...	...	1	1
Total ...				28	22

The above 24 defects, together with four brought forward from the previous year, make a total of 28, of which 22 were remedied, leaving six unabated at the end of the year.

### **Ice Cream Makers and Vendors.**

The itinerant dealer in Ice Cream appears to be quickly disappearing, as there are now only a few of this class engaged in that calling, compared with what obtained three or four years ago. This has arisen from the fact that most Confectioners make and sell this article. Its manufacture therefore having now come into more responsible hands, will be carried out under much more cleanly and better conditions.

### **Public Health Laboratory.**

I am pleased to report that rather more advantage has been taken of the Public Health Laboratory, during

the year. Eighty-two specimens have been submitted for examination, against 57 during the previous year.

The following table gives details of the work done.

DISEASE.	Number of Specimens.	Results of Examination.	
		Positive.	Negative.
Diphtheria (Swabs) ...	47	7	40
Do. (Membrane) ...	1	0	1
Tuberculosis (Sputum) ...	28	8	20
Do. (Urine) ...	2	0	2
Do. (Milk) ...	1	0	1
Anthrax (Dust) ...	1	0	1
Total ...	80	15	65

Besides the foregoing, a specimen of Cerebro Spinal fluid was examined, but was found to be sterile.

### Midwives' Act.

The administration of this Act devolves upon the Health Committee, and a properly qualified lady visitor is much needed, among other things, for the purpose of supervising the work of the Midwives, and until such an appointment is made, it will be impossible to visit the Midwives as often as is necessary, for the proper supervision of their work.

The Midwives' Act requires all practising midwives to see that their name is entered upon the local register at the beginning of the year. There were 35 such midwives in the Borough, but only 30 sought registration, consequently there were five who failed to carry out the law in this respect.



I visited the homes of 22 of these midwives during the year, and the following table gives a few of the particulars I was able to ascertain as a result thereof.

Number Visited.	Out.	CASE BOOK.				Other conditions not properly complied with.
		Well Kept.	Indifferent-ly kept.	Badly kept.	Not Inspected.	
22	9	4	2	7	9	13

From the above table it will be observed that out of 13 case books inspected, only four could be said to be well kept, in fact, several had no proper case book. Very few of the midwives understood the use of disinfectants, or the clinical thermometer. Very few had provided themselves either with the instruments required, or the outfit prescribed by the Regulations of the Midwives' Board. In fact, while it is true that a few of these midwives appear to conduct their practice in a careful and cleanly manner, not one of those visited can be said to thoroughly observe or efficiently carry out the regulations above referred to.

During last winter, Dr. Shaw, one of the recognised teachers of midwifery of the Midwives' Board, gave a course of lectures, for the benefit of the midwives practising in Halifax. I understand that some 20 of these midwives attended those lectures, and it is hoped that they have thus acquired information which will enable them to carry out their work more efficiently in the future, and observe more thoroughly the regulations in force for their guidance.

The following is a list of those who were registered at the Health Office during the year under notice.

Name.	Address.
Buckley Mary Ann...	8, Wainhouse Terrace
Firth Margaret ...	7, Concrete Street, Lee Mount
Lumb Elizabeth Ann	5, Dunkirk Street
Crowther Hannah Elizabeth	39, Hammond Street
Ogden Emma ...	11, Ingram Square
Firth S. A. ...	5, Prince Street
Crabtree Isabella ...	31, Bright Street
Connew Sarah ...	23, Clay Street, Hanson Lane
Marsland Emma ...	16, Cherry Street
Shelley Emelina ...	67, New Bank
Fielden Louisa ...	24, Winn Street
Haslem Sarah Ann...	59, Bath Place, Woodside
Halstead Frances Ellen ...	3, Aspinall Street East
Aaron Hannah ...	7, Lane Ends, Wheatley
Bowling Betty ...	3, Buttress, Luddenden
Haigh Matilda ...	142, Southowram Bank
Sutcliffe Ellen ...	8, Brickfields, Holmfield
Lake Lucy ...	14, Kell Lane, Shibden
Wade Hannah ...	4, Lintelfield Street
Edwards Sarah ...	47, St. Stephen St., Copley
Jowett Sarah Alice...	27, New Bank
Milner Mary Hannah ...	18, Malt Shovel Yard
Crossley Hannah Holroyde	25, Fairview Terrace
Smith Clara ...	34, Beech Hill Terrace
Smith Emma ...	21, Causeway Foot
Wood Mary Elizabeth	10, Fern Street, Boothtown
Robinson Mary Ann ...	14, Ashbourne Grove
Birrell Agnes ...	24, Gladstone Road
Horsfall Frances Ann ...	8, Dunkirk Street
Greenwood Mary Louisa "	13, Kingston Street

## Disinfection.

The steam disinfecting apparatus, which was constructed by Goddard, Massey & Warner, is situated at Stoney Royd, and during the year under review there were 5,221 different articles disinfected therein.

The number of rooms in private houses which were fumigated with sulphur or formalin, and disinfected, was 844. There were also 19 elementary day schools disinfected during the year, as the following table will show.

Date.	Name of School.	Number of Rooms Fumigated.
January 5th	... Mechanics' Institute, N'th'wram	8
March 9th	... Moorside (Infants) ...	7
„ 22nd	... Lee Mount „ ...	6
May 11th	... Mechanics' Institute... ..	8
June 12th	... Siddal (Infants) ... ..	7
„ 13th	... Parish Church ... ..	7
„ 14th	... Sunnyside (Infants) ... ..	7
„ 15th	... Holy Trinity „ ... ..	4
„ 15th	... Battinson Rd. „ ... ..	13
„ 16th	... Akroyd Place „ ... ..	10
„ 18th	... Parkinson Lane (Infants) ... ..	10
„ 19th	... Warley Road „ ... ..	15
„ 20th	... Pellon Lane „ ... ..	6
„ 21st	... Haugh Shaw ... ..	13
July 2nd	... Warley Town ... ..	11
„ 12th	... Cote Hill, St. John's... ..	4
„ 12th	... St. Marie's (Infants) ... ..	5
„ 17th	... Northowram „ ... ..	4
December 7th	... Moorside „ ... ..	7
	Total number of rooms disinfected ... ..	152

Disinfecting fluid is supplied free of charge, on application to the Health Office, to all houses in which infectious disease breaks out.



### Schools and Infectious Disease.

The Borough suffered from a rather severe outbreak of Measles, between the months of March and August, and there is no doubt that the day schools offer facilities for the spread of this and other diseases. It is the Infants' and Babies' classes which are chiefly concerned in the spread of Measles, and it was found necessary during the year to close the Infant departments of no less than 17 schools, for varying periods of time, as the following table will show.

Disease.	Name of School.	Date of Closure.	Period of Closure.
Measles ...	Lee Mount (Infants)...	March 19	4 weeks
" ...	" "	April 16	2 "
" ...	" "	" 30	4 "
" ...	Moorside "	March 5	3 "
Scarlet Fever	" "	Dec. 3	3 "
Measles ...	Parkinson Lane "	June 11	3 "
" ...	Akroyd Place "	" 11	3 "
" ...	Siddal "	" 11	3 "
" ...	Sunnyside "	" 11	3 "
" ...	Battinson Road "	" 11	3 "
" ...	Holy Trinity "	" 11	3 "
" ...	Parish Church "	" 11	3 "
" ...	Pellon Lane "	" 18	3 "
" ...	" "	July 9	2 "
" ...	Haugh Shaw "	June 18	3 "
" ...	" "	July 9	2 "
" ...	Warley Road "	June 18	3 "
" ...	" "	July 9	2 "
" ...	Portland Road "	June 20	5 "
" ...	Warley Town "	" 25	3 "
" ...	Salterlee "	" 25	3 "
" ...	Warley S. John's, "	July 9	4 "
" ...	Northowram "	" 12	3 "

Scarlet Fever and Diphtheria are also undoubtedly spread at times through school influence. We have not however found this to be particularly the case during the past year, in connection with Diphtheria, as only 52, out

of 158 cases reported, were of school age, or less than one third. In the case of Scarlet Fever, however, it appears that school influence may have been a more important factor, because 104 children, out of 214 cases reported as suffering from this disease, were of school age, or practically one half.

The following table gives a list of the schools affected with Scarlet Fever and Diphtheria during the year, and the number of cases reported in connection with each school.

Name of School.	Scarlet Fever.	Diphtheria.	Total.
Moorside ...	17	2	19
Parkinson Lane ...	6	9	15
St. Augustine's ...	8	5	13
Battinson Road ...	8	4	12
Queen's Road ...	4	6	10
Mechanics' Institute, Northowram ...	10	...	10
Haugh Shaw ...	2	6	8
Siddal ...	6	...	6
Lee Mount ...	7	...	7
Holy Trinity ...	3	4	7
Copley ...	6	...	6
Boothtown ...	4	2	6
Portland Road ...	5	...	5
Pellon Lane ...	3	2	5
Salterhebble ...	1	2	3
Sunnyside ...	2	2	4
Warley Road ...	...	2	2
Bradshaw ...	...	1	1
Higher Grade ..	1	2	3
Parish Church ...	3	...	3
Ackroyd Place ...	1	1	2
Warley Town ...	2	...	2
Mixenden ...	1	...	1
Heath ...	1	...	1
St. Joseph's ...	1	...	1
Southowram ...	...	1	1
High School ...	1	...	1
Wainstalls ...	1	...	1
Northowram ...	...	1	1
Total ...	104	52	156

We have found the officials of the Education Department and the Teachers generally, always ready and willing to assist us in dealing with infectious diseases, and the Teachers appear to exercise due vigilance in their respective classes, in seeking out suspicious cases of fever. It is difficult therefore to say what more could be done in this respect. There is one matter, however, to which I think it worth while to call attention, and that is the towels used by the children in the school lavatories. Now in my opinion, the towel offers a suitable medium for the spread of infectious diseases of various kinds. Even a common cold I believe can be spread from one child to another, by means of a towel. It is of course impossible for each child to be supplied with a separate towel, but I think it would be a good thing for clean towels to be supplied rather more frequently than they are at present, and if those used could be frequently disinfected, it would also be an improvement.

The provision of lavatories at day schools are useful, not only for the purpose of enabling the children to wash themselves after play, but also to teach them habits of cleanliness. Such a lesson is much needed in connection with some families, while of course in the majority of cases this is no doubt not so. Cleanliness is absolutely essential to the preservation of good health, and while no doubt a large majority of parents attend fairly well to the personal cleanliness of their children generally, yet there are very few who ever think of extending this practice to the mouth and teeth. All kinds of microbes, deleterious and otherwise, are drawn into the mouth. The mouth is moist, and maintained at blood heat, with



particles of food also as a rule hanging about the teeth, so that here you have a fitting nidus in which microbes can grow ; here you have an incubator of the most perfect kind, in which germs will readily develop, consequently a daily and frequent cleansing out of the mouth, even if it only be with pure water, and the cleansing of the teeth with a brush or other means, at least twice a day, is an act of cleanliness which would add materially to the present health of the child, be a means of preserving their teeth, and procuring for them comfort and health in after years.

While cleanliness generally is being inculcated in school, why could not a little attention be given by the teachers to these special matters, it would take up very little time, and it would do an incalculable amount of good by improving the health, and preserving the teeth of the children.

### **Meteorological Observations.**

These observations are taken at Belle Vue, which is 625 feet above the sea level.

During the year, Mr Whiteley, who had had charge of this work for many years, sent in his resignation, and Mr. Green, Chief Librarian of the Public Library, has been appointed in his stead.

A general summary of the observations taken during the year, is given on the next page.

General Summary of Meteorological Observations taken at the Public Library, Belle Vue, from January 1st, 1906, to December 31st, 1906.

By E. GREEN, SECRETARY AND LIBRARIAN.

LATITUDE OF STATION = 53° 43' N.

LONGITUDE = 1° 52' W.

HEIGHT ABOVE, SEA LEVEL = 625 FEET.

1905.	Pressure of Atmosphere in Month.		Temperature of Month.							Mean Temperature.		Vapour.				Mean Reading of Thermometer.				Wind.				Mean amount of Cloud.	Rain.		REMARKS.
Month.	Mean.	Range.	Highest.	Lowest.	Range.	Mean			Air.	Dew Point.	Elastic Force.	In a cubic foot of Air.		Mean degree of Humidity.	Mean Weight of a cubic foot of Air.	Maximum in Days of Sun.	Minimum on Grass.	Estimated Strength.	Relative proportion of								
						Of all Highest.	Of all Lowest.	Daily Range.				Mean.	Short of Saturation.						N.	E.	S.	W.					
	in.	in.	°	°	°	°	°	°	°	°	in.	gr.	gr.		gr.	°	°						No. of Days (1/16).	Amount Collected.	in.		
January	29.149	1.496	49.4	26.0	23.4	43.3	35.2	7.9	39.2	34.3	0.212	2.3	0.7	83	531.3	58.8	32.7	2.4	2	6	15	30	8.4	26	4.80	The observations have been reduced to mean values by Glaisher's Barometrical & Diurnal Range Tables, and the Hygrometrical results have been deduced from the seventh edition of the Hygrometrical Tables, after corrections for Index errors of the Instruments employed.	
February	29.061	1.830	44.6	26.0	18.6	40.1	31.6	8.5	35.3	30.7	0.176	2.1	0.4	84	546.6	68.3	26.5	2.1	4	3	8	32	7.0	18	2.67		
March	29.523	1.196	54.8	28.1	26.7	43.6	33.4	10.2	38.9	30.0	0.171	2.0	0.7	74	549.9	79.5	30.7	2.8	20	...	12	26	6.8	22	3.05		
April	29.365	1.486	64.9	37.9	27.0	50.4	34.5	15.9	44.8	29.1	0.166	1.9	1.5	50	540.3	88.9	27.9	2.1	16	17	5	16	5.7	12	1.50		
May	29.138	0.691	62.0	33.6	28.4	53.4	41.9	11.5	47.5	40.8	0.240	2.9	0.8	79	531.9	92.2	39.3	2.2	12	10	14	17	8.6	17	2.51		
June	29.426	0.946	74.0	40.0	34.0	63.0	46.5	16.5	54.8	45.6	0.322	3.8	1.2	75	530.1	104.8	43.0	2.1	13	7	16	17	7.6	13	1.00		
July	29.413	0.536	73.0	36.4	36.6	64.9	49.0	15.1	57.1	47.5	0.327	3.7	1.5	70	519.3	105.4	45.2	2.0	4	5	13	30	7.5	15	2.12		
August	29.382	0.872	84.0	47.2	36.8	62.3	51.2	11.3	58.2	50.9	0.365	3.9	2.0	65	522.5	105.4	44.8	2.3	3	7	18	26	7.0	18	2.41		
September	29.519	1.086	87.5	37.1	50.4	61.8	46.8	15.0	55.1	45.3	0.308	3.6	1.2	75	530.9	97.3	38.7	1.8	10	2	7	26	5.9	6	1.17		
October	29.070	1.251	64.8	32.6	32.2	54.2	43.6	10.6	48.9	44.2	0.291	3.3	0.7	84	530.4	77.5	42.2	1.9	4	10	18	18	7.6	26	5.39		
November	29.147	1.428	57.5	32.0	25.5	48.0	40.1	7.9	44.0	40.7	0.254	2.9	0.4	88	537.5	58.1	...	1.2	10	2	8	21	8.8	17	3.66		
December	29.230	1.906	51.8	22.2	29.6	40.9	33.1	7.8	37.2	34.7	0.201	2.3	0.5	89	546.3	48.9	...	2.7	12	2	6	21	7.1	17	3.56		
Annual Means	29.285	1.227	64.0	33.2	30.8	52.1	40.6	11.5	46.7	39.5	0.253	2.9	0.9	76	534.7	82.1	37.1	2.1	9	6	11	23	7.3	...	...		

NOTE.—The Annual Means give the Averages for Twelve Months.

The Mean Readings of the Earth Thermometer, four feet below the surface, were as follows:—January, 42°; February, 41°; March, 40°; April, 42°; May, 45°; June, 50°; July, 53°; August, 55°; September, 55°; October, 52°; November, 48°; December, 44°.

Highest Readings of the Earth Thermometer (56°) were from September 5th to September 14th.

Lowest                   "                   "                   (39°)                   "                   March 1st to March 2nd.

Rain fell on 207 days, and the amount collected was 33.84 inches.





The rainfall for the past year was greater than any year since 1903, and also rain fell on a larger number of days.

The following table gives the rainfall during the past 13 years.

Year.	No. of Days Rain Fell.	Amount of Rainfall.
1894	158	30·31
1895	149	33·78
1896	172	32·02
1897	187	29·72
1898	182	29·49
1899	153	35·33
1900	205	39·68
1901	179	29·41
1902	191	28·03
1903	219	44·25
1904	191	29·32
1905	187	25·94
1906	207	33·84

There are ten other stations for estimating rainfall, distributed over the area of the Halifax Corporation Waterworks, and the following table gives the particulars regarding these, together with the amount of rainfall in the case of each.

## HEIGHTS ABOVE SEA LEVEL IN FEET.

	1380	1350	1325	1375	1050	1060	990	815	795	568
1906.	Walshaw Dean.	Midgley Moor.	Warley Moor.	Ovenden Moor.	Widdop.	Castle Carr Lodge.	Ogden.	Ramsden Wood.	Albert.	Gibbet.
	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
January ..	6·41	6·22	6·54	6·81	8·11	6·19	6·80	5·36	4·82	5·08
February ..	2·68	3·38	2·90	2·95	2·99	3·51	3·17	3·02	2·68	2·81
March ..	3·29	2·94	3·13	3·56	2·89	3·45	3·20	3·19	3·27	3·21
April ..	1·51	1·77	1·85	2·08	·99	1·84	1·95	1·68	1·15	1·56
May ...	3·38	3·19	3·43	3·87	4·05	3·64	3·43	3·13	2·88	2·70
June ..	1·71	1·85	1·79	1·52	2·00	1·68	1·70	1·43	1·36	1·45
July ..	2·77	2·68	2·81	3·37	3·03	3·05	2·86	2·55	2·63	2·06
August ..	3·81	4·66	5·20	5·09	4·59	4·83	4·47	4·30	2·93	2·35
September ..	1·44	1·20	1·18	1·21	1·39	1·25	1·00	·98	·74	·68
October ...	6·85	6·84	7·38	6·67	6·96	7·48	7·23	6·55	5·58	5·61
November ..	5·29	4·95	5·40	6·03	5·69	5·57	5·24	4·77	4·25	4·21
December ..	4·33	3·68	3·76	4·52	4·87	4·75	4·36	3·75	3·23	3·62
Totals ..	43·47	43·36	45·37	47·68	47·56	47·24	45·41	40·71	35·82	35·34

The average rainfall on all the gauges, 1906 ... 43·19

Do. do. 1905 ... 34·42

Difference ... 8·77

**Sale of Food and Drugs Acts.**

The following report has been submitted by the Borough Analyst, Mr. J. A Dewhirst.

There were 230 samples of food and drugs analysed during the year 1906.

The following table gives the number analysed per 1,000 population since 1900.

Year.	Number of Samples Analysed.	Estimated Population of the County Borough.	Number of Samples Analysed per 1000 of the Population.
1900	210	101,187	2·07
1901	183	105,120	1·74
1902	217	105,978	2·04
1903	155	106,800	1·45
1904	209	107,000	1·95
1905	154	107,500	1·43
1906	230	108,000	2·13

The proportion throughout the Country in 1905, was 2·65 per 1,000.

The following table shows the kind of samples and number of each dealt with, together with results of analyses.

ARTICLE.	Total.	Genuine.	Adulterated	Percentage Adulterated.	Percentage Adulterated in whole County 1905.
Milk ...	138	127	11	8·0	10·5
Butter ...	18	17	1	5·5	6·9
Margarine ...	2	1	1	50·0	4·8
Lard ...	8	6	2	25·0	0·4
Cheese ...	9	8	1	11·1	2·3
Coffee ...	5	5	...	0·0	6·6
Tea ...	6	6	...	0·0	0·0
Potted Shrimps	2	...	2	100·0	42·8
Tinned Meats ..	8	7	1	12·5	43·1
Vinegar ...	5	3	2	40·0	7·1
Beer ...	6	6	...	0·0	2·5
Sweet Nitre ...	15	6	9	60·0	21·7
Cream of Tartar	4	4	...	0·0	5·5
Milk of Sulphur	4	4	...	0·0	17·5
All Articles...	230	200	30	15·0	8·2



The County Council, and Boroughs of the West Riding returned the following percentages of adulteration in 1905 (Extract from Local Government Board Report).

West Riding County Council	Barnsley	Bradford	Dewsbury	Doncaster	Huddersfield	Leeds	Rotherham	Sheffield	Wakefield
5·1	12·2	5·2	3·4	5·2	8·0	19·7	7·1	10·7	6·3

The explanation of these remarkable differences would be interesting.

Sweet Spirit of Nitre is really the worst article sampled. I am making some investigations with regard to its keeping properties, from which it appears that the article is not difficult to keep above the minimum limit of strength if properly understood. None but Chemists should deal in such a drug, which is commonly relied on by the public to arrest, or ward off a cold, which might develop into something serious. It must not be forgotten that the British Pharmacopœia allows a loss of 33% of its strength before I can condemn it at all.

The adulteration of Butter is now so scientifically performed as to defy detection frequently, hence a Select Committee issued on July 13th, 1906, recommendations to Parliament on the subject. The chief of these are the registration of butter and margarine factories, and inspection by officers of the Local Authority or the Board of Agriculture.

The adulteration of Milk in Halifax is less than the average of England and Wales. Owing to the large number (434) of milk sellers, it is not possible at the present rate to take a sample from every one, in less than

three to four years, hence a dishonest dealer, if fortunate, may escape for several years undetected. The same is true of shopkeepers in general. However, the possibility of detection is no doubt realised, and exerts a deterrent effect.

Thus last year a large adulterator of butter was proved to have made over £6,000 extra profit in 15 months. Obviously the imposition of even a substantial fine has no terrors in such a case.

The report of the Local Government Board draws attention to the proved fact that chance customers in a shop are usually served with the genuine article, and only when the agent has become known as a regular customer, has he or she been served with margarine, instead of butter, for instance.

### **Borough Fever Hospital.**

At the commencement of the year under review, viz.:—January 1st, 1906, there were 49 patients remaining in the hospital from the previous year, and there were admitted during the year, 160 cases, against a total of 354 during the previous year.

The following table gives details regarding the number admitted, and the mortality of the same during the year.

Disease		Number Admitted	Deaths	Case Mortality per cent.
Diphtheria ...	...	30	8	26·6
Scarlet Fever	...	110	7	6·3
Enteric Fever	...	20	2	10·0
Total	...	160	17	...

During the previous year the case mortality per cent. for Scarlet Fever was 2·4, Diphtheria 27·2, and Typhoid Fever 20·6 respectively, which compared with the above table shows that while there was a great fall in the mortality of Enteric Fever, and a slight improvement in Diphtheria, the mortality of Scarlet Fever was nearly three times that of the previous year. Two of the above deaths from Scarlet Fever, however, were of persons not belonging to the Borough.

The following table shows the number of cases that have been admitted to the Fever Hospital since the year 1881.

Year	Small-pox	Cholera	Typhus Fever	Typhoid Fever	Scarlet Fever	Diphtheria	Others	Total
1881	16			17	34		2	69
1882	13		3	24	15		5	60
1883	2		2	26	8		5	43
1884	1			29	23		2	45
1885	15		1	16	23		4	59
1886	3			18	24		3	48
1887	3			18	54		1	76
1888	5		1	25	28		7	66
1889	4			54	33			91
1890				35	39		7	81
1891		1		47	47		6	101
1892	188		1	17	15		1	222
1893	340			4	1			345
1894	15			15	39		1	70
1895				39	25		7	71
1896				56	30		20	106
1897				32	237		3	272
1898				28	341			369
1899				38	515			553
1900	3			44	250		9	306
1901	3			18	597	12	43	633
1902	1			30	365	7		403
1903	140			24	219	17	4	404
1904	84			22	349	25	6	486
1905	57			29	246	22		354
1906				20	110	30		160



In consequence of the reduced number of cases admitted to the Hospital, and the smaller number present in the Borough, there has been a reduction in the staff at the Hospital, chiefly through not filling up the vacancies as Nurses left, who had completed their term of service. One of the Charge Nurses also left during the year, and her place was not filled.

The Hospital has been carefully and economically managed throughout the year, by the Matron, Miss Robison, and the Nurses by their unremitting care and attention to the patients, have earned their gratitude.



County Borough of Halifax.

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THE  
Sanitary Inspector's Report

FOR THE

Year ended 31st December, 1906.

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*To the Chairman and Members of the Health  
Committee.*

GENTLEMEN,

I have the honour and pleasure of laying  
before you for your consideration my Thirty-second  
Annual Report on the operations of the Health  
Department for the year ended December 31st, 1906.

TOWN HALL, HALIFAX,

*May, 1907.*



## HEALTH DEPARTMENT.

### Summary of Work done.

Total number of Visits made by the District Inspectors	27247
Total number of Visits to Houses	14002
"    "    Lodging Houses and Furnished Rooms	976
Number of Visits to Houses with reference to Defective Drainage	4047
Number of Visits to Houses with reference to Cleanliness, Overcrowding, &c.	1083
Number of Visits to Houses with reference to Infectious Diseases	1892
Rooms Disinfected	844
Cases removed to the Hospital	160
Infectious Diseases reported	473
Nuisances reported	2860
Nuisances abated	2961
Notices served	1275
Letters served (referring to Nuisances, &c.)	215
Summonses taken out	3
Smoke Observations taken	732
Old Ashpits altered to Goux System	48
Goux Closets registered	161

It must be remembered that many nuisances are frequently included under one notice, and therefore the number of nuisances represent considerably more than the number of notices.

## Removal of Nuisances.

At the commencement of the year 346 complaints remained on the books and in course of removal, since then 2860 have been registered and 2961 removed, leaving at the close of the year 245 to be dealt with. The following table shows the nature of nuisances registered.

Nature of Nuisances.				Number Registered.
Defective Sink Drains	...	...	...	132
„ „ Pipes	...	...	...	70
„ „ Syphon Traps	...	...	...	57
„ Basement Drains	..	...	...	78
„ Yard Drains	...	...	...	47
„ Urinal Drains	...	...	...	7
„ W.C. Drains	...	...	..	28
„ Area Drains	...	...	...	8
„ Private Street Drains	...	...	...	3
Made-up Sink Pipes	..	...	..	57
„ Bath Pipes	..	...	...	2
„ Lavatory Pipes	...	...	...	8
„ Basement Drains	...	...	...	132
„ Water Closets	...	..	...	19
„ Yard Drains	...	...	...	64
„ Urinal Drains	...	...	...	16
„ Gullies	...	...	...	24
„ Private Street Drains	..	...	...	3
Untrapped Basement Drains	...	..	..	10
„ Sink Drains	...	...	...	67

NUISANCES—*Continued.*

Nature of Nuisances.				Number Registered.
Untrapped Area Drains	...	...	...	4
„ Yard Drains	...	...	...	79
„ Urinal Drains	...	..	...	2
„ Bath Pipes	...	...	..	8
„ Lavatory Pipes	...	.	.	2
Drains not efficiently Trapped :				
Sink Drains	...	...	...	7
Cellar Drains	...	...	...	3
Yard Drains	...	...	...	23
Urinal Drains	...	...	...	1
Area Drains	...	...	...	3
Sink Drains requiring Disconnecting	...	...	...	131
Defective Fall-pipe Drains	...	...	...	32
„ Fall-pipes	...	...	..	75
„ Spouting	...	...	...	130
„ Roofing	...	...	...	32
Broken Pot and Iron Traps	...	...	.	24
Insufficient Supply of Water to Closets	...	...	...	1
Nuisances from Water in Cellar	...	...	...	23
„ Want of Drains	...	...	...	107
„ Smoke	...	...	...	4
„ Swine	...	...	...	5



NUISANCES—*Continued.*

Nature of Nuisances.				Number Registered.
Houses Overcrowded	...	...	...	16
„ requiring limewashing	...	...	..	59
Accumulations of Offensive Matter	...	...	..	103
Privies requiring Limewashing	...	...	..	302
Insufficient Privy Accommodation	...	...	...	41
Offensive Ashpits and Privies	...	...	...	23
„ Goux Closets	...	...	...	81
„ Ash Tubs	...	...	...	99
Doors off Closets	...	...	...	54
„ Ashes Tub Places...	...	..	..	41
Dilapidated Closets	...	...	...	39
Ashpits requiring Re-construction	...	...	...	31
Miscellaneous	...	...	...	249
COWSHEDS.				
Defective Drains	...	...	...	22
Want of Light, Room, Air Space, and Ventilation	...	...	...	37
Dilapidated Cowsheds and Floors	...	...	...	15
Cesspools requiring Emptying and Defective	...	...	...	20
Offensive Middensteads	...	...	...	11
Cowsheds requiring Limewashing	...	...	...	41

NUISANCES—*Continued.*

Nature of Nuisances.				Number Registered.
FACTORIES AND WORKSHOPS.				
Rooms requiring Limewashing	...	...	...	16
Insufficient Privy Accommodation	...	...	...	6
Want of Ventilation	...	...	...	3
Defective Drains	...	...	...	12
„ Water Closets	...	...	...	2
BAKEHOUSES.				
Defective Drain	...	..	...	1
Rooms requiring Limewashing	..	..	..	8
TOTAL ...				2860

The above list does not include work carried out after mere verbal notice.

## Night Scavenging.

The following table shows the number of ashpits cleansed during the year, and the number of loads of manure and rubbish collected.

Month.		Number of Ashpits Emptied.	Loads of Soil.	Loads of Rubbish.	Total Number of Loads.
January	...	486	103	148	251
February	...	354	163	87	250
March	...	336	141	92	233
April	...	378	113	109	222
May	...	434	103	161	264
June	...	409	204	69	273
July	...	625	164	114	278
August	...	311	128	78	206
September	...	391	163	89	252
October	..	687	130	154	284
November	...	344	173	65	238
December	..	175	56	57	113
<b>TOTAL</b>	...	<b>4930</b>	<b>1641</b>	<b>1223</b>	<b>2864</b>

The total number of ashpits cleansed during the year was 4930, as against 4973 in the previous year. 48 ashpits with privies have been altered to the Goux system, and ashes tubs supplied in the place of 30 dry ashpits. The above includes Ovenden, Illingworth, Copley, Warley, and Northowram Wards.



TABLE SHOWING THE NUMBER OF ASHPITS WITHIN  
THE BOROUGH, DECEMBER 31st, 1906.

District.	Wards.			Ashpits with Privies.	Dry Ashpits.	Total.
1	Akroydon and North ...			44	47	91
2	Ovenden and Illingworth ..			274	26	300
3	Central and East	...	...	32	82	114
4	West and South	...	...	11	191	202
5	Skircoat and Southowram ...			26	19	45
6	Pellon and Kingston ...			5	32	37
7	Copley	...	...	98	35	133
8	Warley	..	...	232	22	254
9	Northowram ...			156	...	156
	TOTAL	...	...	878	454	1332

### Goux Scavenging.

The following table shows the number of closet tubs and loads of ashes collected during the year.

Month.			Number of Closet Tubs Collected.	Loads of Ashes Collected.
January	...	...	58714	1937
February	...	...	51525	1676
March	...	...	57456	1896
April	...	...	49691	1625
May	...	...	58694	2013
June	...	...	53243	1507
July	...	...	56371	1465
August	...	...	59072	1502
September	...	...	53013	1396
October	...	...	58245	1706
November	...	...	55824	1808
December	...	...	52207	1650
TOTAL			664055	20181

The above represents 31621 loads of night soil (each load containing 21 closet tubs), as against 31366 and 20217 loads of ashes respectively for the preceding year.

The number of additional closets registered is 162, being a decrease of 72 on the number registered during the year 1905.

The following table shows the number of Goux closet tubs registered since the commencement of the Goux system.

YEAR.	Number of Closet Tubs.	Number Registered during each year.
1871	1102	1109 in 15 months
1872	1895	786
1873	2440	545
1874	2820	380
1875	3088	268
1876	3316	228
1877	3769	453
1878	4277	508
1879	5858	576
1880	5071	218
1881	5552	481
1882	6057	505
1883	6506	449
1884	7405	899
1885	8049	644
1886	8727	678
1887	9327	600
1888	9831	504
1889	10446	615
1890	11098	652
1891	11644	546
1892	12068	419
1893	13047	984
1894	13450	403
1895	13797	347
1896	14145	348
1897	14444	299
1898	14881	437
145 Tubs returned in connection with property pulled down.		
1899	15287	551
1900	15974	687
1901	16397	461
38 Tubs returned.		
1902	16808	411
1903	17164	356
1904	17428	264
1905	17662	234
1906	17823	161

During the year 117 closets have been erected in connection with new property, and 36 have been altered from the old system, and 8 added where the accommodation was previously insufficient.



## Streets Scavenging.

Table showing number of lineal yards and miles swept during the year in each ward.

Wards.			Number of Lineal Yards Swept.	Miles.	Yards.
East ...	...	...	2862998	1626	1238
Central	...	...	991704	563	824
South	...	...	1269427	721	467
West ...	...	...	736545	418	865
North	...	...	580868	330	68
Akroydon	...	...	321850	182	1530
Southowram	...	...	629111	357	791
Skircoat	...	...	213464	121	504
Kingston	...	...	135426	76	1666
Pellon	...	...	286966	163	86
Ovenden & Illingworth Part swept by Halifax Gang	}		31330	17	1410
Total	...	...	8059689	4579	9449

### Streets Scavenging.

The subjoined table gives at a glance the work done in this department during 1906.

Number of Streets swept ... ..	33684
Lineal yards swept... ..	8059689
Square yards swept ... ..	64163410
Number of Streets watered ... ..	4416
Loads of Water used for that purpose...	4183
Loads of Sweepings gathered ... ..	7027
Loads of Snow removed from the Streets	3949
Number of Gullies emptied ... ..	230739
Garbage removed from Market Hall ...	1006
Loads of Ashes and Sand put on Streets	106

During the year 340 loads of garbage have been removed from fishmongers, fried fish shops, and greengrocers.

### Birks Hall Tips.

Table showing the number of loads of ashes and rubbish tipped during the year.

Name.	Number of Loads.
Goux Department ... ..	18447
Highways Committee... ..	320
Private Firms ... ..	3280
Total ... ..	22047

ANALYSIS OF REFUSE COLLECTED IN THE BOROUGH  
OF HALIFAX DURING THE YEAR 1906.

	No. of Loads.
From Wet and Dry Ashpits ... ..	2864
From Ashes Tubs ... ..	20181
From Goux Closet Tubs ... ..	31621
Sweepings gathered from the Streets, and Refuse from Gullies ... ..	7027
Garbage removed from Market Hall ...	1006
Horse Droppings from Streets ...	265
Garbage from Fried Fish Shops ...	336
Total Number of Loads ...	63300

### Smoke Observations.

The following Table shows the number of Smoke Observations taken during the year, and the average number of minutes of dense smoke emitted.

	Number of Observations taken.	Average Number of min'tes of dense smoke emitted.
Number of Observations taken	732	
Number showing moderate Smoke or <i>nil</i> ... ..	} 355	
Number of Observations taken for a period of 60 minutes, each showing Dense Smoke	} 377	
Number of Observations show- ing Dense Smoke above the Maximum adopted by the Committee ... ..	} 15	
Average number of minutes of Dense Smoke emitted from Chimneys ... ..	} 2·3	

The number of observations taken during the year is 732. Fifteen of these showed dense smoke above the maximum allowed by your committee. The average number of minutes of dense smoke emitted from the chimneys is 2·3.



TABLE SHOWING NUMBER OF VISITS MADE BY  
THE MEAT INSPECTOR.

Description of Premises.				Number of Visits.
Public Slaughterhouses...	...	...	...	1076
Private Slaughterhouses	...	...	...	174
Borough Market	...	...	...	409
Wholesale Market	...	...	...	443
Fasting Sheds...	...	...	...	314
Potted Meat Houses	...	...	...	352
Tripe Boiling Houses	...	...	...	184
Butchers' Shops	...	...	...	3379
Fried Fish Shops	...	...	...	257
Cowsheds	...	...	...	511
Dairies and Milkshops	...	...	...	149
Bakehouses	...	...	...	215
Other Visits	...	...	...	514
Total				7797

TABLE SHOWING MEAT, FISH, FRUIT, ETC.,  
DESTROYED AS UNFIT FOR HUMAN FOOD.

Kinds of Food Destroyed.				Quantity in lbs.
15 Carcases of Beef	...	...	...	9330
Beef not in Carcase	...	...	...	501
29 Carcases of Pigs	...	...	...	3828
Pork not in Carcase	...	...	...	445
7 Carcases of Mutton	...	...	...	558
Mutton not in Carcase	...	...	...	109
23 Carcases of Veal	...	...	...	1290
Veal not in Carcase	...	...	...	155
17 Rabbits	...	...	...	24
Fish	...	...	...	9587
Fruit	...	...	...	754
Offals	...	...	...	5405
Other Foods	...	...	...	886
Total				32872

Total amount of Meat and Offal destroyed suffering from Tuberculosis, 11,185 lbs.

Total amount of Meat destroyed, 21,681 lbs.

351 Seizures have been made during the year, 6 by Magistrates Order, and 345 by consent of owner.

### Canal Boats.

The inspections are made periodically by the Chief Sanitary Inspector.

The number of boats inspected during the year 1906 was 49. All of these were found to conform with the Acts and Regulations.

In all cases where females and children were on board, proper provision was made for the separation of the sexes. Of the 49 boats inspected, there were six with women and children on board, and three with women only; the children in all cases having been brought for the single journey only.

All boats were free from bilge water, ventilation was fairly good, and good provision was made for the storage of water. The boats generally were clean and in good condition. There has not been a single case of sickness or overcrowding on board.

The boats plying in this district chiefly belong to one company, and are registered either at Goole, Mirfield, or Leeds, consequently no arrangements have been made for registration.

Number of Boats Inspected.	Number Registered to carry.	Number of Males on board.	Number of Females on board.	Total.
49	336	99	7	106

### AGES OF CHILDREN FOUND ON CANAL BOATS.

	Under 1 Year.	Years.						Total.
		2	4	5	8	10	13	
Number ...	1	3	2	1	2	1	1	11

TABLE SHOWING PROSECUTIONS UNDER THE PUBLIC HEALTH ACT &amp; FOOD &amp; DRUGS ACT.

Date.	Defendant's Name.	Nature of Offence.	Decision of Court.			Remarks.
			Penalties.	Costs.	Total.	
1906			£ s. d.	£ s. d.	£ s. d.	
May 22nd ...	Messrs. Willey and Pearson ...	Permitting Dense Smoke to be emitted from the chimney in connection with their works ...	5 0 0	...	5 0 0	Order to abate within 2 months
June 8th ...	Henry Calvert ...	Adulterated Vinegar ...	1 0 0	0 16 0	1 16 0	
Dec. 18th ...	Joe Dawson Lees ...	Selling Milk adulterated with 5% added Water	2 0 0	0 15 0	2 15 0	



The foregoing table shows three prosecutions as against six in the previous year. The total fines, including costs amount to £9 11s. as against £19 5s. 6d.

### **Infectious Diseases removed to Hospital.**

During the year 20 cases of Typhoid, 110 cases of Scarlet Fever, and 30 cases of Diphtheria have been removed to the Borough Fever Hospital, Stoney Royd.

### **Disinfection.**

Eight hundred and forty-four rooms have been fumigated where fever cases existed, and 5,221 articles have been disinfected at the Disinfecting House, Stoney Royd.

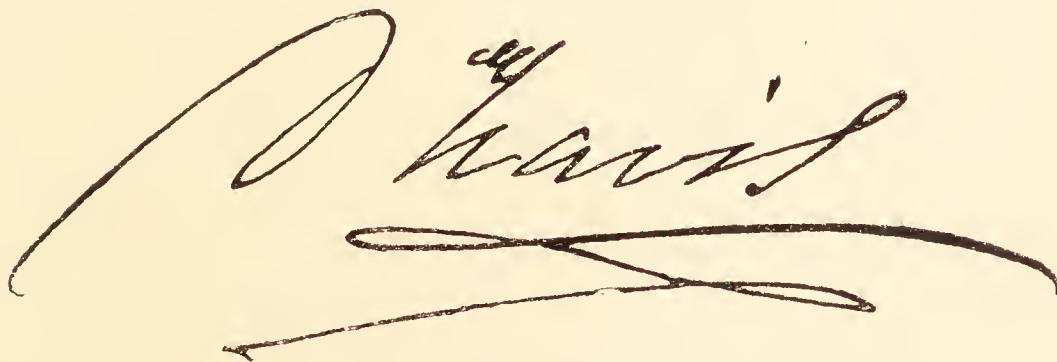
### **Vans used as Dwellings.**

Forty-nine visits have been made to vans used as dwellings, and enquiries made as to the health of the occupiers.

I again take the opportunity to tender my thanks to the District Inspectors, and the Chief Clerk (Mr. J. W. Jackson), and his staff, for the valuable assistance rendered to me during the year.

I am, Gentlemen,

Your obedient Servant,



Chief Sanitary Inspector  
and  
Scavenging Superintendent.



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# APPENDIX.

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VITAL STATISTICS OF THE BOROUGH OF HALIFAX DURING 1906 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED in the DISTRICT								Deaths of Non- residents registered in Public Institutions in the District.			Deaths of Residents registered in Public Institutions beyond the District.		NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate.*	3	Under 1 year of age.		5	6	At all ages.		9	10	11	12	13	Number.	Rate.*		
					Number.	Rate per 1,000 Births Registered			7	8									
1	2		4																
1896	93,581	2329	24.8	351	150.7	1694	18.1	197	27	21	1688	18.0							
1897	94,311	2147	22.7	301	140.2	1603	16.9	220	33	28	1598	16.9							
1898	95,037	2205	23.2	369	167.3	1751	18.4	235	28	28	1751	18.4							
1899	95,767	2239	23.3	363	162.1	1806	18.8	258	34	30	1802	18.8							
1900	98,910	2316	23.4	314	135.5	1874	18.9	277	42	19	1851	18.7							
1901	105,120	2351	22.3	301	128.2	1726	16.4	294	38	21	1709	16.2							
1902	105,950	2225	21.0	324	145.6	1645	15.5	282	36	25	1634	15.4							
1903	106,800	2248	21.0	279	124.1	1610	15.0	308	54	36	1592	14.9							
1904	107,000	2154	20.1	282	130.9	1662	15.5	303	52	33	1643	15.3							
1905	101,500	2072	19.2	271	130.7	1651	15.3	319	75	42	1618	15.0							
Averages for years 1896-1905	100,997	2228	22.1	315	141.5	1702	16.8	269	41	28	1688	16.7							
		2070	19.1	242	116.9	1741	16.1	420	107	40	1674	15.5							
1906	108,000																		

\* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.



TABLE SHOWING THE NUMBER OF INFECTIOUS DISEASES IN EACH LOCALITY OF THE BOROUGH, NOTIFIED DURING THE YEAR, AND CLASSIFIED ACCORDING TO AGE; ALSO THE NUMBER OF CASES REMOVED FROM EACH LOCALITY TO THE BOROUGH FEVER HOSPITAL.

NOTIFIABLE DISEASES.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.																NUMBER OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.														
	At all Ages.	At Ages—Years.						Oswald Ward.	Abneydon Ward.	North Ward.	Central Ward.	West Ward (W).	South Ward.	East Ward.	Southwam Ward (H).	Shrovet Ward.	Fellon Ward.	Kington Ward.	Tilburyworth Ward.	Capley Ward.	Northwam Ward.	Wansley Ward.	Oswald Ward.	Abneydon Ward.	North Ward.	Central Ward.	West Ward (W).	South Ward.	East Ward.	Southwam Ward (H).	Shrovet Ward.	Fellon Ward.	Kington Ward.	Tilburyworth Ward.	Capley Ward.	Northwam Ward.	Wansley Ward.	Out of Borough.
		Under 1.	1 to 6.	6 to 16.	15 to 25.	26 to 65.	65 and upwards.																															
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Diphtheria ...	... 158	... 54	84	8	12	...	9	10	4	7	19	9	8	8	22	18	24	7	5	5	3	1	3	1	2	2	6	2	2	3	1	3	1	1	1	...	1	
Membranous Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Erysipelas ...	... 56	... 1	4	10	35	6	5	7	2	2	4	1	1	3	10	5	3	9	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Scarlet Fever	... 214	1	69	120	20	4	23	21	6	7	21	7	3	14	8	16	21	32	8	20	7	9	15	5	5	16	3	1	10	1	7	7	10	5	12	3	1	
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Enteric Fever	... 38	...	...	11	6	21	2	1	2	3	...	3	2	8	6	2	6	2	1	...	...	...	1	1	1	...	1	1	7	2	1	2	1	1	...	...	1	
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Puerperal Fever	... 7	...	...	...	1	6	1	1	2	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
TOTALS...	... 473	1	124	219	45	78	6	40	40	16	19	45	20	15	33	46	41	55	50	18	25	10	10	19	7	8	18	10	4	19	6	9	12	12	7	13	3	3



TABLE SHOWING CAUSES OF, AND AGES AT, DEATH DURING THE YEAR, 1906 IN THE SEVERAL LOCALITIES OF THE BOROUGH.

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT.							DEATHS IN OR BELONGING TO LOCALITIES (AT ALL AGES).																Total Deaths in Public Institutions in the District.
	AT SUBJOINED AGES.							Overden Ward.	Alderden Ward.	North Ward.	Central Ward.	West Ward (W).	South Ward.	East Ward.	Southwam Ward (H).	Stretton Ward.	Copley Ward.	Fellen Ward.	Kingston Ward.	Illingworth Ward.	Northwam Ward.	Wadey Ward.		
	At all Ages.	Under 1.	1 to 5.	6 to 15.	15 to 25.	25 to 65.	65 and upwards.																	
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ... ..	53	14	34	4	1	...	...	8	4	4	5	2	1	3	12	1	...	4	3	4	...	2	...	1
Scarlet Fever ... ..	6	1	3	1	1	...	...	1	...	...	...	...	...	1	1	...	1	1	...	1	...	...	...	7
Whooping Cough ... ..	6	1	5	...	...	...	...	...	...	1	1	...	...	...	1	...	1	...	2	...	...	...	...	...
Diphtheria and Membranous Croup ... ..	42	...	21	20	1	...	...	1	5	1	1	1	5	1	4	3	3	4	6	1	4	2	...	12
Enteric Fever ... ..	4	...	...	...	...	4	...	1	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	4
Epidemic Influenza ... ..	10	...	...	...	...	4	6	1	...	...	...	...	...	1	1	1	1	...	...	5	...	...	...	1
Diarrhoea ... ..	31	19	8	...	...	2	2	3	2	5	2	1	2	5	4	4	...	...	1	...	1	1	...	2
Enteritis ... ..	14	7	4	...	...	1	2	2	...	1	3	...	1	1	...	2	1	1	2	...	...	...	...	4
Puerperal Fever... ..	3	...	...	...	...	3	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Erysipelas ... ..	5	...	1	...	1	2	1	...	1	...	1	...	1	...	...	1	...	...	1	...	...	...	...	1
Other Septic Diseases ... ..	4	...	...	...	1	3	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Phthisis ... ..	122	...	1	5	25	83	8	10	2	7	16	7	5	17	10	9	2	10	11	3	5	8	...	35
Other Tubercular Diseases ... ..	43	5	15	9	2	11	1	4	2	5	7	2	2	4	3	4	1	2	2	3	1	1	...	11
Cancer, Malignant Disease ... ..	102	...	...	1	2	64	35	5	4	13	8	7	11	4	5	8	2	3	15	13	1	3	...	43
Bronchitis ... ..	140	13	8	1	1	47	70	5	9	13	8	13	9	12	16	15	1	7	16	6	4	6	...	22
Pneumonia ... ..	147	29	23	6	6	64	19	7	6	12	16	16	5	10	7	17	4	11	10	16	7	3	...	28
Pleurisy ... ..	2	...	...	...	...	2	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory Organs ... ..	16	...	3	2	1	8	2	1	1	1	...	1	...	2	1	2	...	2	2	...	...	1	...	...
Alcoholism, Cirrhosis of Liver ... ..	20	...	...	...	...	18	2	...	...	4	3	1	1	4	1	...	...	4	1	1	...	...	...	5
Venereal Diseases ... ..	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
Premature Birth... ..	39	39	...	...	...	...	...	3	4	4	4	2	2	6	4	5	...	1	1	1	1	1	...	3
Diseases and Accidents of Parturition ... ..	14	...	...	...	1	13	...	1	3	2	...	3	...	2	...	...	1	...	1	...	...	...	...	...
Heart Diseases ... ..	179	...	1	2	...	93	83	11	10	14	17	19	12	17	9	18	3	13	14	10	7	5	...	39
Accidents ... ..	26	2	5	1	5	8	5	1	4	3	3	2	...	...	2	3	1	2	2	...	...	3	...	17
Suicides ... ..	2	...	...	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	2
Diseases—Brain and Nervous System ... ..	169	12	7	7	8	75	60	13	9	15	8	15	15	15	11	16	8	9	18	11	3	3	...	30
" Digestive System ... ..	54	7	1	5	3	27	11	5	1	1	6	2	4	4	6	7	1	6	1	5	1	4	...	24
" Urinary System ... ..	58	...	2	...	4	35	17	8	5	2	4	3	6	4	3	8	1	1	4	5	1	...	...	16
Congenital Malformation ... ..	15	14	...	1	...	...	...	1	...	...	1	...	...	1	1	1	1	3	2	2	1	1	...	2
Convulsions ... ..	38	31	6	1	...	...	...	...	1	5	5	3	...	9	3	...	1	4	1	4	1	1	...	...
Old Age ... ..	149	...	...	...	...	149	...	5	10	13	7	19	20	18	8	11	6	15	6	7	2	2	...	57
All other Causes... ..	159	46	13	10	14	47	29	10	15	16	11	14	6	17	13	13	1	9	9	12	5	8	...	51
All Causes ... ..	1674	242	161	76	78	615	502	109	99	144	138	135	108	159	128	152	12	115	131	113	45	56	...	120





VITAL STATISTICS OF THE BOROUGH OF HALIFAX DURING 1906 AND PREVIOUS YEARS.

[illegible]



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